جمهوری اسلامی ایران
وزارت بهداشت، درمان و آموزش پزشکی
معاونت تحقیقات و فناوری
وزارت بهداشت، درمان و آموزش پزشکی
بانک سپه
شهرداری تهران

بیست و چهارمین کنگره ملی و دهمین کنگره بین المللی سالیانه پژوهش و فناوری دانشجویان علوم پزشکی کشور

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به میزبانی دانشگاه علوم پزشکی بقیه الله

سالن همایش‌های برج میلاد

کتابچه خلاصه مقالات

BOOK OF ABSTRACTS

شناسنامه

برگزار کنندگان
معاونت تحقیقات و فناوری دانشگاه علوم پزشکی بقیة الله و کمیته تحقیقات و فناوری دانشجویی دانشگاه علوم پزشکی بقیة الله

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فهرست

پیام ارکان کنگره

دکتر یونس پناهی

معاون محترم تحقیقات و فناوری وزارت بهداشت

خداوند را شاکرم که در مهر ماه سال ۱۴۰۲ بار دیگر در خدمت دانشجویان و آینده سازان حوزۀ علوم پزشکی کشور عزیزمان جمهوری اسلامی ایران باشیم. نگاه ویژه به محققان و نخبگان جوان حوزۀ سلامت از سیاست های کلان معاونت تحقیقات و فناوری می باشد. طبق این اصل، فعالیت های کلانی در سطح ستادی شروع شد و با همت شما عزیزان جامۀ عمل بر آنها پوشانده شد. قرار دادن گرنت تشویقی در موسسۀ ملی تحقیقات علوم پزشکی ایران (نیماد)، حمایت مالی مستقیم از فعالیت های کمیته های تحقیقات دانشجویی، متمرکز نمودن و هدفمند نمودن سربازان نخبه، بکارگیری محققان جوان در قالب برنامه های پزشک پژوهشگر مبتنی بر نیازهای حوزۀ سلامت و استفاده از محققان جوان در کمیته های تصمیم گیری از جمله اقداماتی است که در راستای اسناد بالادستی جهت نگهداشت نخبگان در معاونت تحقیقات و فناوری صورت گرفت. آنچه که امروز به آن معتقد هستم این است که ما در ابتدای راه همتاپروری در حوزۀ تحقیقات و فناوری هستیم و می طلبد که دانشجویان بیش از پیش در زمان دانشجویی در توسعۀ فعالیت های علمی مشارکت داشته باشند. هدف از گرد هم آمدن در کنگره سالیانه دانشجویان دانشگاه های علوم پزشکی، اشتراک گذاری تجربه های موفق و شروع فعالیت های تیمی برای دانشجویان می باشد. ضمن عرض خیر مقدم به محضر تمامی پویندگان دانش و فناوری، توقع دارم که با توجه به سیاست ها و اولویت های کلان تحقیقات حوزۀ سلامت، دانشجویان حوزۀ سلامت در کاهش تهدیدهای سلامت به همراه اساتید خود در دانشگاه ها گام بردارند. امید دارم با تشویق و ترغیب بدنۀ محرک دانشگاه ها بتوانیم در راستای مرجعیت علمی با هم گام برداریم.

دکتر حسن ابوالقاسمی

رئیس کنگره ورئیس دانشگاه علوم پزشکی بقیه الله

خداوند را شاکریم همزمان با آغاز سال تحصیلی در بیست و چهارمین کنگره ملی و دهمین کنگره بین‌المللی پژوهش و فناوری دانشجویان علوم پزشکی ذهن های جوانان دغدغه مند را گرد هم آورده تا شاهد دستاورد های آن ها باشیم.

امروزه کشور عزیزمان ایران افتخار دارد که سرشار از جوانان محقق و تحصیل کرده است و چنین رویدادهایی فرصت مناسبی برای ارائه دستاورد های خلاقانه آنان میباشد

از سوی دیگر در این گردهمایی همکاری های دانشگاهی تقویت می‌شود و یک بستر ارزشمند برای پرورش خلاقیت و نوآوری فراهم آمده تا نشاط و امید به آینده را در جوانان دانشجو بهبود بخشد.

حضور فعالانه دانشجویان محقق در این همایش می‌تواند موجبات انگیزه و اشتیاق بیشتر اساتید را فراهم آورد.

اثری که در این رویداد اعلام می‌شود بیانگر ساعت های بیشمار فداکاری و پیگیری بی وقفه دانش و میل شدید برای ایجاد تفاوت و تحول است.

این کنگره فقط ارائه و بحث علمی نیست بلکه جشن وحدت و هدف مشترک ماست. ما از یکدیگر یاد گرفته و شبکه هایی ایجاد میکنیم که منبع الهام بخش همه جوانان در پیشبرد مرزهای پزشکی خواهد بود.

اینجانب از همه شما دانشجویان عزیز صمیمانه تشکر می‌کنم.

انشاالله که این رویداد بزرگ یک تجربه متحول کننده را برای همه ما رقم بزند.

پیام ارکان کنگره

دکتر نیما رضایی

دبیر کمیته کشوری تحقیقات و فناوری دانشجویی

به نام او که حرکت را هدف می‌دهد
و عشق به او زندگی را معنی می‌بخشد
و سپاس او را که اگر مهر و محبتش نبود هیچ آغازی پایان نمی یافت.
در جستجوی علم و دانش بودن است که به نام دانشجو معنا می بخشد، و برای پرواز به سوی قله های علم و دانش، دو بال قدرتمند نیاز است و مهارت پرواز را نیز باید آموخت. که بهترین زمان برای آموختن مهارت های پژوهشی و فناوری همین دوران دانشجویی است. خاطرمان باشد که عاشق پرواز بودیم که آغاز کردیم و مباد روزی که تنها دغدغه مان آب و دانه شود که یعنی قفس. و قفس یعنی مرگ پرواز. که باید پرامید و پرتوان نقش پرواز گروهی پرندگان عاشق را در این آسمان نه چندان آبی بزنیم. و مهم نیست اگر روزگار همیشه بر وفق مراد نیست و آسمان مبهم. آنان که عاشق پرواز هستند، زیبایی پرواز گروهی پرندگان عاشق را می بینند و می فهمند. میدانند که باید شانه به شانه یکدیگر بالا رفت و باز مهم نیست اگر گاه صیادانی بر روی زمین خاکی دست بر شانه هم می گذارند و برای صیدمان از یکدیگر پیشی می گیرند. آنقدر میتوان زیبا بود و بالا رفت تا تیر سیاه آنان نتواند زخمی بر بال سفیدمان بنشاند...
همایش سالانه کمیته های تحقیقات و فناوری دانشجویی دانشگاههای علوم پزشکی کشور نماد حرکت گروهی دانشجویان سراسر کشور است که آمده اند تا در کنار هم مشق پرواز کنند. یقین دارم که همه آنهایی که در این پرواز هم پرواز شدند خاطره شیرین بیست و چهارمین همایش سالانه دانشجویان علوم پزشکی کشور و برنامه ریزی دقیق و میزبانی گرم همراهان خوبمان را فراموش نخواهند کرد. باشد که این آسمان تا همیشه میزبان پرندگان عاشقش باشد که پرامید و پرتوان بر آن نقش پرواز میزنند و میخوانند و ما از دیدن و شنیدن این پرواز و آواز گروهی به خود میبالیم.
و اما آرزوی من برایت
دلی خوش برای خواندن بهتر
توانی نو برای رفتن برتر
که پرواز گروهی در بهار، معنا و شوق دیگری دارد
و کلام آخر باز نام او که عشق را زنده می دارد ...

دکتر عباسعلی ایمانی فولادی

سرپرست علمی و فناوری کنگره

موجب افتخار است در سالی که به رشد تولید و مهار تورم نامیده شده است، دانشگاه علوم پزشکی بقیه الله میزبان آینده سازان و نخبگان جوان حوزه علم و فناوری شده است.
جوانانی که به عنوان پیشگامان آینده، نقش بسیار مهمی در ارتقاء دانش، تحقیقات و فناوری دارند. اهمیت دادن به این امر ترسیم کننده‌ی آینده ای روشن، جامعه ای پیشرفته و خودساخته خواهد بود.
تاکید بر پژوهش و هموارسازی راه پژوهشگران یکی از مهم‌ترین راه های رسیدن به خودکفایی است. به نوبه خودم از همه ی عزیزانی که در این مدت شبانه روز تلاش کردند تا چنین گردهمایی بزرگی را فراهم کنند کمال تشکر و قدردانی را دارم.
امیدوارم حضور گرمابخش شما عاشقان عرصه‌ی علم و پژوهش، زمینه‌ی رشد و بالندگی میهن عزیزمان را فراهم کند.

پیام ارکان کنگره

دکتر مهدی باقری

سرپرست کمیته اجرایی کنگره

بسیار مفتخریم کمیته تحقیقات دانشجویی دانشگاه علوم پزشکی بقیه الله (عج) امسال میزبان معتبرترین کنگره دانشجویی کشور شده است. این مجموعه همواره دارای سیاست های حمایتی از دانشجویان جهت شرکت در فعالیت های علمی پژوهشی ، ترویج و ارتقاء فرهنگ پژوهش و ایجاد بستری مناسب جهت رشد و شکوفایی بوده است .تلاش های زیادی از سال گذشته تا به الان صورت گرفت تا بتوانیم در این مدت سه روزه میزبان خوبی برای همه نخبگان حاضر در این رویداد باشیم . امیدوارم شاهد روزی باشیم که بزرگترین دغدغه ی همه ما فراهم سازی بستری مناسب برای شکوفایی و اعتلای علمی پژوهشی دانشجویان و مدیران آینده کشور باشد .

علیرضا بلوریان

دبیر کل دانشجویی کنگره

به رسم نیکوی دیدار هر ساله جوانان ارزشمند ایران در بزرگترین کنگره ملی و بین المللی پژوهش و فناوری دانشجویان علوم پزشکی کشور،بسیار خرسندیم به همراه یاران اندیشمند و توانای خود در کمیته تحقیقات و فناوری دانشجویی دانشگاه بقیه الله ،به میزبانی این رویداد باشکوه اهتمام ورزیم.

بی شک پژوهش و فناوری با گسترش مرز های دانش و گشودن افق های تازه، ضامن پیشرفت جامعه و یکی از شاخص های اصلی بالندگی آن به شمار می رود و توجه به این مهم در همایش های دانشجویی فرصت مغتنمی را در اختیار اندیشمندان و دانش پژوهان جوان قرار می‌دهد تا فرصت ارائه دستاورد های جدید پژوهشی خود را بیابند و با جدید ترین یافته های عرصه های دانش و فناوری پزشکی آشنا شده و از آنها جهت اعتلای خویش و کشور بهره جویند.

هدف از برگزاری این رویداد بزرگ،امید آفرینی و ایجاد فرصتی برای هم اندیشی ، انتقال تجربیات با مشارکت فعال اساتید گرانقدر، دانش پژوهان و صاحبان فکر و اندیشه و البته دیدار با شما دانشجویان عزیز است. برای رسیدن به این لحظه و در طی مسیر برگزاری کنگره حامیان و همراهان دلسوزی قدم به قدم پیش رفتند.
امیدست که تمام تلاش برگزار کنندگان کنگره،نقشی ماندگار در خاطر شرکت کنندگان رقم بزند.

معرفی کنگره

بیست و چهارمین دوره کنگره ملی و دهمین دوره کنگره بین المللی دانشجویان علوم پزشکی کشور در دو شاخه تحقیقات و فناوری در تهران و به میزبانی دانشگاه علوم پزشکی بقیه الله(عج) برگزار میگردد. این کنگره هر ساله توسط کمیته کشوری تحقیقات و فناوری دانشجویی وزارت بهداشت به یکی از دانشگاه های علوم پزشکی کشور واگذار میگردد. سرپرست و اعضای اصلی کنگره توسط معاونت تحقیقات و فناوری وزارت بهداشت انتخاب میگردند که شامل:

- **ریاست کنگره:** رئیس محترم دانشگاه،
- **سرپرست علمی کنگره:** معاون محترم تحقیقات و فناوری دانشگاه
- **سرپرست اجرایی کنگره:** سرپرست محترم کمیته تحقیقات دانشجویی دانشگاه

با توجه به بخش اصلی کنگره و جامعه هدف کنگره که دانشجویان می باشند دبیران دانشجویی برای کنگره انتخاب می شوند که شامل دبیر کل دانشجویی، دبیر کمیته علمی و فناوری و دبیر کمیته اجرایی می باشد.

دانشگاه علوم پزشکی بقیه الله (عج) با بیش از ۳ دهه افتخار آفرینی در حوزه های مختلف علوم پزشکی کشور، در سال ۱۴۰۲ شمسی قرار است این کنگره را با ارائه برنامه هایی متفاوت نسبت به قبل برای تقویت و ارتقا سطح علمی دانشجویان برگزار نماید. یکی از مهمترین جهت گیری ها در کشورهای پیشرو جهان ، حرکت دانشگاه ها به سمت نسل سوم و چهارم است که مهمترین ساحت در این حرکت، توجه ویژه به مسئله فناوری، کار آفرینی و نوآوری است. به همین دلیل یکی از مهمترین اقدامات در نظر گرفته شده در این برنامه اهمیت مسئله فناوری و حل مشکلات فناورانه پزشکی در کشور است. از سایر اقدامات مهم در پیش رو و با توجه به کمتر دیده شدن اهمیت بعد بین الملل کنگره در سال های قبل، قرار است این کنگره متفاوت تر از کنگره های قبلی و با برنامه های جامع تر و جذاب تر به استقبال دانشجویان کشور های خارجی رود تا دانشجویان عزیز کشور ایران بتوانند شاهد یک تبادل علمی بی نظیر در سطح بین المللی باشند.

ارکان و کمیته های کنگره

ارکان اصلی کنگره

رئیس محترم کنگره
دکتر حسن ابوالقاسمی

نائب رئیس کنگره
دکتر ابراهیم متولیان

سرپرست علمی کنگره
دکتر عباسعلی ایمانی فولادی

سرپرست اجرایی کنگره
دکتر مهدی باقری

دبیر کل دانشجویی کنگره
دکتر علیرضا بلوریان

دبیر کمیته علمی کنگره
دکتر محمد رضاپور

دبیر اجرایی کنگره
آقای علی ظهیری

دبیر فناوری
آقای طه چرتاب محمدی

دبیر رسانه
خانم نیلوفر ضرونی

دبیر روابط عمومی
آقای علیرضا نیکخواه

کمیته‌های کنگره

کمیته پشتیبانی
دکتر منصور بابایی

کمیته بین الملل
دکتر حسن باقری

کمیته فناوری
دکتر محمد رضانورانی

کمیته روابط عمومی
آقای منوچهر زهیری

کادر علمی و اجرایی کنگره

کمیته علمی

علمی و پژوهشی:
دکتر رضا علیزاده(سرپرست کمیته هیئت داوران پژوهشی)
علیرضا سلیمانی تبار

کمیته بین الملل :
میلاد اصغردوست
حسین حسن پور

کمیته پنل کارگاه ها و فوق برنامه :
امین وصال یگانه
محمدحامد رشیدی

کمیته علمی :
محمدحسین رنجکش
مهدی عبدالرشیدی
مصطفی اسلامی
محمد مهدی شاملو
امیرحسین نوربخش
متین معینی
محمدحسین پی پر

کمیته انتشارات
دکتر غلامرضا فرنوش

کمیته اجرایی

رسانه:
عماد دادگر
امیرحسین عظیمی
محمدامین دیزگانی
محمد جاوید
فرشته قاسم پور
فاطمه نوری زاده

کمیته روابط عمومی و اطلاع رسانی:
علی رمضانی
امیرمحمد توحیدی
ابولفضل لکزایی

کمیته تشریفات
آرمان علیزاده
میلاد ملکی
هانیه خمسه

کمیته تدارکات و پشتیبانی
سبحان عیسی زاده
حسین ظهیری
غزال وکیل زاده
زهرا حسینی
سما عباسی
سیدناصر موسوی

آمار نهایی

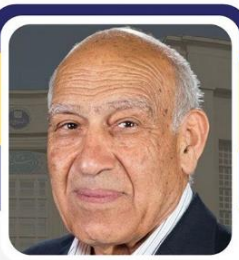
۲۴ امین کنگره دانشجویان علوم پزشکی کشور

مقالات ثبت شده	۲۱۸۲ مقاله
طرح فناوری و اختراعات	۱۳۲ طرح (۴۸ اختراع)
رزومه های ارسال شده در بخش دانشجویی	۵۰۳ رزومه
داوران دانشجویی مکاتبه‌ای	۱۸۰ دانشجو
رزومه های ارسال شده در بخش هیئت علمی	۲۲۴ نفر
داوران هیئت علمی مکاتبه‌ای	۱۰۰ نفر
کاربران سایت	۴۶۰۶ نفر
مجموع مقالات و طرح فناوری	۲۳۱۴ عنوان


بیست و چهارمین کنگره ملی و دهمین کنگره
بین المللی سالیانه دانشجویان علوم پزشکی کشور
آمار نهایی
تعداد پنل سخنرانی
۲۶
تعداد پنل پوستر
۴۸
شرکت کنندگان کنگره
تعداد
۱۷۳۵
شرکت کنندگان روز افتتاحیه
تعداد
۱۲۰۰
عنوان سخنرانی
تعداد
۲۰۰
عنوان پوستر
تعداد
۴۰۰
کارگاه ها
تیم ورک
۱۰۰ نفر
بیونانومدیسن
۱۰۰ نفر
کارآزمایی بالینی
۶۰ نفر
شبکه عصبی
۶۰ نفر
۵
داور برتر
۶۶
نفر برگزیده هر پنل
۳۶
نفر کاندیدای جشنواره
۲
اثر برگزیده جشنواره علم و هنر
۱۱
نفر برگزیده جشنواره
برگزاری چهار ورکشاپ جنب کنگره ای
برگزاری شش تور بازدید علمی تحقیقاتی و تفریحی
برپایی ضیافت شام
74 پنل ارائه سخنرانی و پوستر
تقدیر از 120 برگزیده در اختتامیه

معرفی سخنرانان کلیدی

سخنران کلیدی



Prof Ardeshir Ghavamzade

Hematologist & oncologist
Pioneer of bone marrow transplantation in Iran

Topics:
Stems cells & Cell therapy

سخنران کلیدی

Prof. Hassan Abolghasemi

Hematologist-Oncologist
Founder of Iranian pediatric hematology and oncology society(IPHOS)

Topics:
Plasma Technology And Treatment in Iran, Past And Future

سخنران کلیدی

Prof Mostafa Ghanei

Respiratory Disease Fellowship
Secretary of health economics

Topics:
Management of Viral Infections Epidemy

سخنران کلیدی

Dr.Fereidoun Mahboudi

Drugs Biotechnology

Topics:
Drugs Technology And Industry In Iran

سخنران کلیدی

Prof Kamran Bagheri Lankarani

President of Health System Policy Research Center
Gastrointestinal & liver Fellowship

Topics:
Research In Health System (New topics)

سخنران کلیدی

Dr. Hamed Mirzaei

Top 1% Scientist
Assistant Professor of Medical Biotechnology

Topics:
Tumour-derived exosomes: Tiny envelopes for big stories

معرفی سخنرانان کلیدی

سخنران کلیدی

Mitra Aminlu

PhD Candidate in Technology Management
Manager of Intellectual Property Management Center

سخنران کلیدی

Mohammad Saffarioun

CEO of Aryogen Pharmed
Strategic pharmaceutical management
Master's degree in biochemistry

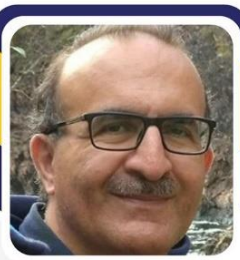
سخنران کلیدی

Prof. Mohammadreza Salehi

Specialist in infectious and tropical diseases
Head of Faculty of Medicine, Tehran University of Medical Sciences

Topic:
Covid _19

سخنران کلیدی



Prof. Babak Hossein Khalaj

Director of Sharif Center for Data Science
Professor of Electrical Engineering Faculty of
Sharif University of Technology

Topic:
Modern Interaction of Engineering and Medical Science

سخنران کلیدی

Prof. Saeid Eslami

Medical Informatics
Professor and head of department of Medical Informatics of
Mashhad University of Medical Sciences

Topic:
Remote health, mobile health and smart technologies,
ten years of experience in Iran - obstacles and opportunities

سخنران کلیدی

Prof. Alireza Nikbakht Nasrabadi

Medical Surgical Nursing
Vice President of the Scientific Association of
Phenomenology of Health Sciences of Iran

Topic:
Professional self-understanding and its
relationship with professional development in nursing

اسامی برگزیدگان بخش **سخنرانی** بیست و چهارمین کنگره ملی و دهمین کنگره بین المللی سالیانه پژوهش و فناوری

نام و نام خانوادگی	پنل سخنرانی	دانشگاه علوم پزشکی
شایان علیجانی پور	داخلی	تهران
امیرمحمد دهقان	مطالعات نظام سلامت	بهشتی
سیدفاطمه میر محسنی	طراحی واکسن	اردبیل
صبا سلطانی	کووید1	اصفهان
راحله کریمی	کووید 2	اصفهان
علیرضا معتمدی	هوش مصنوعی	تبریز
مهرداد نکوئی	زخم و سوختگی	بهشتی
ایلیا میرزایی	غدد و متابولیسم	زاهدان
فاطمه روایی	خون شناسی	کاشان
هانیه شادین	تله مدیسین1	قزوین
سپهر مهدی زاده	نوآوری و داروئی	ارومیه
فائزه رمضان زاده	زنان	بابل
آوا آقائی	علوم اعصاب و روانشناسی شناختی	اصفهان
پگاه مردانه	فناوری نوین دارویی	شیراز
شقایق جمشیدی	تله مدیسین 2	شهرکرد
امیرحسین بابایی	نورولوژی و ENT	شیراز
سارا عارف حسینی	تغذیه 2	تبریز
سحر فصحتی	تغذیه 1	اصفهان
رضا محمدی	پرستاری 2	همدان
امیرپارسا محمدزاده	قلب و ریه 2	مشهد
محمدنامق امین	بین المللی	کرمانشاه
زهرا نعمتی	پرستاری 1	تهران
سحر هجری	فناوری	اردبیل
رامیار رحیمی	اختراعات	کردستان
زهرا علیدوستی	نوآوری دارویی	اصفهان
کیانا رضایی پور	بهداشت عمومی	قزوین
سپیده اوجی	سبک زندگی	اردبیل

اسامی برگزیدگان پنل های **پوستر** بیست و چهارمین کنگره ملی و دهمین کنگره بین المللی سالیانه پژوهش و فناوری

نام و نام خانوادگی	پنل پوستر	دانشگاه علوم پزشکی
حدیث رزم آرای	علوم اعصاب و روانشناسی1	تبریز
امیرمحمد عسگری	تله مدیسین 1	شاهد
پارمیس نطقی	تغذیه و سبک زندگی	اراک
یوسف خدیوی	طب مکمل و گیاهان دارویی	تبریز
سمانه حجارزاده	تغذیه 2	اهواز
نیما نیک بین	داخلی (کنسر و خون و روماتو)	یزد
مهدی اصغری الماس	مامایی	سراب
مینا ملایی	کووید 4	قزوین
امیرحسین جلیل وند	داخلی 2	تهران
سومیه سردار محمدصالح	روش های پیشگیری	کرمانشاه
ملیکا معماری	تحقیقات نظام سلامت 3	ساوه
هیرو حمزه پور	طب مسافرتی	آزاد تهران
علی حامدنیا	مطالعات داده	ارتش
محمدرضا اسدی	پرستاری 3	قزوین
نفیسه عسگری	پرستاری 2	گلستان
فاطمه صادقی	تغذیه 4	کرمانشاه
محمدرضا موجبی	پرستاری 1	اردبیل
محمد مظفری	اخلاق و سلامت معنوی	قزوین
علی مهرآور	ماشین لرنینگ	تبریز
احمد بوالی	نظام سلامت 1	بیرجند
سجاد زارع گریزی	بیماری های زنان	یزد
عرفان محمودیان	سلامت دهان و دندان	یزد
ماهور فرزان	قلب و ریه	اصفهان
ستایش ابراهیمیان	کووید 3	شوشتر
فاطمه فتحی	پرستاری 4	یزد
محمدمهدی طاهری	کووید 5	بقیه الله
صبا کرمان پور	طراحی واکسن	آزاد آمل

اسامی برگزیدگان پنل های **پوستر** بیست و چهارمین کنگره ملی و دهمین کنگره بین المللی سالیانه پژوهش و فناوری

نام و نام خانوادگی	پنل پوستر	دانشگاه علوم پزشکی
رویا فیروزی	پزشکی شخصی 1	شیراز
ایمان خیرالهی	علوم اعصاب	اصفهان
پگاه ورادی	اطفال	کاشان
سحر جلیلوند	پزشکی شخصی2	بهشتی
فاطمه حیدری	بهداشت 1	ایلام
مهدی جلیلوند	مهندسی بهداشت محیط	قزوین
ایرج برات پور	طب سنتی 2	شهرکرد
ملیکا خاتمی	بهداشت عمومی 2	کردستان
محمد پورفریدونی	کووید2	جیرفت
علی پروین	باروری و ناباروری	ارومیه
عرفان زارع	آنکولوژی	اردبیل
الهه مختاری	تغذیه 1	اصفهان
مصطفی درویشیان	فناوری	شیراز
محمدعلی هاشمی	تله مدیسین 2	آزاد کاشان
مهسا پورحمیدی	نورو و روان	اصفهان
عهدیه بحری	آموزش پزشکی	شیراز
نیلوفر رسایی	تغذیه 3	تهران
رامین انصاری	طب سنتی 1	تهران
محمد حمیدی فر	کووید 1	ارومیه
علیرضا سلمانی	زخم و سوختگی	تهران
ثمین موسوی	بیوتکنولوژی دارو	اصفهان

زمان‌بندی	تالار اصلی
۸-۸:۱۵	پخش کلیپ مقدماتی کنگره
۸:۱۵-۸:۴۰	**سخنرانی استاد سید علیرضا مرندی** پیشرفت های نظام سلامت بعد از انقلاب اسلامی
۸:۴۵-۹:۱۵	**سخنرانی استاد اردشیر قوام زاده** سلول های بنیادی و پیوند مغز استخوان در ایران
۹:۲۰-۹:۳۵	**سخنرانی استاد فریدون مهبودی** پیشرفت های حوزه دارویی در ایران
۹:۴۰-۱۰	**سخنرانی استاد حسن ابوالقاسمی** صنعت پلاسما در ایران
۱۰-۱۰:۲۰	پذیرایی
۱۰:۲۰-۱۲-۳۰	افتتاحیه

پنل های ارائه پوستر از ساعت ۱۴ روز اول تا ساعت ۱۸ روز دوم در همکف سالن برج میلاد مطابق برنامه برگزار خواهد شد.

اسکن کنید

روز اول

پنل ۱_۴ — ساعت ۱۶-۱۴

- تالار۱ — **زخم و سوختگی** — سخنران: دکتر مرتضی ایزدی
- تالار۲ — **هوش مصنوعی و مطالعات داده** — سخنران: دکتر بابک حسین خلج
- تالار۳ — **کارگاه ثبت کارآزمایی بالینی در ایران** — سخنران: دکتر مسعود سلیمانی دودران
- تالار۴ — **کووید-۱۹(آموزش‌ومدیریت)** — سخنران: دکتر مصطفی قانعی
- تالار۵ — **نوآوری دارویی** — سخنران: دکتر احمدرضا دهپور

پنل ۵_۸ — ساعت ۱۸-۱۶

- تالار۱ — **غدد و متابولیسم** — سخنران: دکتر محمدرضا علایی
- تالار۲ — **فناوری** — سخنران: مهندس صفاریون/دکتر اقدمی
- تالار۳ — **کارگاه آشنایی با شبکه عصبی** — سخنران: دکتر مهدی سعادتی
- تالار۴ — **کووید-۱۹(درمان)** — سخنران: دکتر محمدرضا صالحی
- تالار۵ — **زنان و مامایی** — سخنران: دکتر آرزو اسماعیل زاده

روز دوم

پنل ۹_۱۱ — ساعت ۱۰-۸

- تالار۴ — **خون‌شناسی، سرطان و پزشکی شخصی** — سخنران: دکتر حامد میرزایی
- تالار۵ — **بیماری های داخلی ۱** — سخنران: دکتر بهزاد عین الهی
- تالار رودکی — **طراحی واکسن** — سخنران: دکتر جعفر امانی
- تالار مولوی — **جلسه کمیته‌های مناطق آگانه (۹-۸)**

نشست انتقال تجربه (۱۰:۳۰-۹)
دکتر نیما رضایی-دکتر پروین پاسالار
دکتر صلواتی زاده

پنل ۱۲_۱۴ — ساعت ۱۰:۳۰-۱۲:۳۰

- تالار۴ — **تله مدیسین ۱** — سخنران: دکتر سعید اسلامی
- تالار۵ — **پرستاری ۱** — سخنران: دکتر علیرضا نیک بخت
- تالار رودکی — **مطالعات نظام سلامت** — سخنران: دکتر کامران باقری لنکرانی
- تالار مولوی — **جلسه سرپرستان و دبیران با کمیته کشوری**

روز دوم

پنل ۱۵_۲۰ — ساعت ۱۳:۳۰-۱۵:۳۰

- تالار۱ — **بیوتکنولوژی دارویی** — سخنران: دکتر محمدعلی فرامرزی
- تالار۲ — **علوم اعصاب و روانشناسی شناختی** — سخنران: دکتر هدایت صحرایی
- تالار۳ — **تغذیه ۱** — سخنران: دکتر لیلا آزادبخت
- تالار۴ — **کارگاه بیو نانو مدیسن** — سخنران: دکتر حسین قنبری
- تالار۵ — **تله‌مدیسین۲** — سخنران: دکتر سعید اسلامی
- تالار۷ — **پنل اختراعات** — سخنران: دکتر میترا امینلو
- تالار۸ — **نورولوژی و ENT**

پنل ۲۱_۲۶ — ساعت ۱۸-۱۶

- تالار۱ — **قلب و ریه(داخلی ۲)**
- تالار۲ — **فناوریهای نوین دارویی و گیاهان دارویی**
- تالار۳ — **تغذیه ۲** — سخنران: دکتر لیلا آزادبخت
- تالار۴ — **کارگاه TEAM WORK** — سخنران: دکتر ابوالفضل صلواتی زاده
- تالار۵ — **سبک زندگی، باروری و ناباروری**
- تالار۷ — **بهداشت عمومی** — سخنران: دکتر علی اکبر اکبری ساری
- تالار۸ — **پرستاری ۲**

روز سوم

زمان‌بندی	تالار اصلی
۱۳ _ ۸:۳۰	**اختتامیه**

- گزارش نهایی کنگره
- تقدیر از برگزیدگان
- اجرای موسیقی زنده
- اجرای استندآپ کمدی
- دومین جشنواره دانشجویان علوم‌پزشکی

برنامه‌های جانبی

- روز اول: تور بازدید از مراکز علمی و تحقیقاتی
- روز دوم و سوم: بازدید از برج میلاد تهران

ارتباط با ما

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بانک صنعت — شهرداری تهران — WWW.ARCIMS24.IR

۲۴ امین کنگره ملی و ۱۰ امین کنگره بین المللی سالیانه

بزرگترین گردهمایی دانشجویان علوم پزشکی کشور

به میزبانی دانشگاه علوم پزشکی بقیة الله(عج)

۱۲ تا ۱۴ مهرماه
سالن همایش های برج میلاد
((کنگره در یک نگاه))

پنل های سخنرانی

International Annual Research &
Technology Congress of Iranian
Medical Sciences Students

۱۲ تا ۱۴ مهـرمـاه ۱۴۰۲

سالن همایش‌های برج میلاد

WWW.ARCIMS24.IR

WEDNESDAY 4 OCTOBER

چهارشنبه

۱۲ مهرماه

پنل زخم و سوختگی

14:00 – 16:00

تالار 1

درمان بیماری های زخم با روش های نوین و ازن تراپی

دکتر مرتضی ایزدی

رئیس مرکزتحقیقات ازن تراپی

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر سلمان برسته	**فاطمه کورکی نژاد**	**ایمان انصاری**	**محمد شاطر**

Mahour Farzan

Engineering of a core-shell polyvinyl alcohol/gelatin fibrous scaffold for dual delivery of Thymus daenensis essential oil and Glycyrrhiza glabra L. extract as an antibacterial and functional wound dressing

Reza Asgari

A systematic review of the effects of oral zinc consumption on the second-degree burns

Mehrad Nekouei

Evaluation of the Effect of Education Based on 7E Learning Cycle Model on Knowledge of Diabetic Foot Ulcer Prevention of Nursing Students

Maryamosadat Mavaei

بررسی اثر داربست ترکیبی پلی¬کاپرولاکتون و بره¬موم به همراه کوئرستین در ترمیم زخمهای پوستی ناشی از سوختگی در مدل موش صحرایی

Toktam Khosravi

Preparation of Photosensitive Hydrogel from Methacrylate Polymers and Evaluation of its Application in the Wound Healing Process

Seyyed Saeed Shams

Evaluation of The New Combination Drug Containing Camphor, Ellagic Acid and Elase on Wound Healing, An Experimental Study

پنل هوش مصنوعی و مطالعات داده

16:00 – 18:00

تالار 2

تعامل مدرن مهندسی و علوم پزشکی

دکتر بابک حسین خلج

رئیس دانشکده مهندسی برق دانشگاه صنعتی شریف

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مهدی سعادتی	هومن زارعی	محمد عرب سرخی	سونیا چاوشی

Alireza Motamedi

AI in IVF For the youth of the population

Elia Rostam

Investigating and predicting the effect of sleep duration on the work quality of shift workers using machine learning and data visualization

Ali Mehravar

Comparing the accuracy of machine learning algorithms in the diagnosis of ovarian cancer malignancy using blood biomarkers and simulating data using Generative Adversarial Networks (GANs)

Mohadese Pourgheisar

Diagnosing Colorectal Cancer Using Microbiomes Obtained From Stool Samples

Erfan Saeedi tazekand

Investigating and predicting the effect of sleep duration on the work quality of shift workers using machine learning and data visualization

Zahra Mehrbakhsh

Evaluation of Artificial Intelligence Methods to Predict Ectopic Pregnancy: A Systematic Review

Hedie Bahrifar

Predicting relapse in childhood acute lymphoblastic Leukemia using different machine learning algorithms

Hamidreza Ghasemirad

The usage of machine learning for prediction and management of atrial fibrillation after cardiac surgeries, a systematic review

پنل کووید-19 شماره 1(آموزش و مدیریت)

14:00 – 16:00

تالار 4

مدیریت اپیدمی در عفونت های ویروسی

دکتر مصطفی قانعی

دبیر ستاد اقتصاد سلامت

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر سلمان خزایی	کیارش روستایی گرایلو	حسین حسینی فرد	محمد فخر المباشری

Hamidreza Shaker

ابتلا به COVID 19به دنبال تزریق واکسن آنفولانزا و عوارض حاصل از آن در بین پرستاران شاغل در بیمارستان های آموزشی درمانی اردبیل در سال 1400

Maede Esmaeeli

Students' academic success in the context of their distance education learning environments: A cross-sectional study during the Covid-19 pandemic

Saba Soltani

Applying the extended parallel process model to examine students' behavioral intentions about the covid-19 vaccine.

Erfan Shahabinejad

Evaluation of sleep quality in medical students of Rafsanjan University of Medical Sciences during the Covid-19 pandemic in 2022

Monireh FaghirGanji

مطالعه مزایا و معایب آموزش مجازی در زمان پاندمی کرونا دیدگاههای کادر آموزشی مدارس و پژوهشسرای دانش آموزی تهران : یک مطالعه کیفی به روش تحلیل محتوای قراردادی

Marjan Kordi

The effect of education and telephone follow-up on the caregiver burden of caregivers of patients with COVID-19, a Quasi-Experimental study

پنل نوآوری دارویی

14:00 – 16:00

تالار 5

بازکاربردیابی دارویی

دکتر احمد رضا دهپور

استاد دانشگاه تهران

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مریم ایمان	حسین بیگانه	دورین جغتایی	روح الله احمدیان

Sepehr Mehdizadeh

Exploring the Anticancer Potential of Chrysin-Loaded Electrospun Nanofibers for Preventing Local Recurrence of Breast Cancer

Fateme Tavakoli-Far

Propenoic acid derivatives as tyrosinase inhibitors: Design, synthesis and efficacy studies through in vitro and in silico approaches

Malihe Akbarpour

Investigation the physicochemical compatibility of anti-asthmatic drug salbutamol with common excipients ued in dry powder inhaler formulations

Moslem Azghandi

The effect of Lavender essential oil following the administration of alpha interferon and cyclosporine A on depressive behavior in mice

Aiesheh Gholizadeh Hashjin

Novel anti-Alzheimer marine-sourced compounds with bilateral mechanisms; Results of an in-silico study through virtual screening

Ehsan Ghasemi

Investigating the efficiency of the photocatalytic process in the removal of tetracycline antibiotic using magnetic nanocomposite coated with ZIF-8 in the presence of simulated sunlight.

Samin Eghtedari Naeini

Preparation and in vitro evaluation of self-nanoemulsifing Sustained release pellets of gliclazide

Sara Sajjadi

Compatibility study of kojic acid and azelaic acid used in semi-solid preparations

پنل غدد و متابولیسم

16:00 – 18:00

تالار 1

روش های نوین درمانی بیماری دیابت در کودکان

دکتر محمدرضا علایی

فوق تخصص غدد اطفال

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر محبوبه السادات حسینی	مهدی رفیعی	مائده علیا	فاطمه جعفری

Fatemeh Barzegar Paraei

Correlation of Oromandibular Manifestations and Neuropathy in Diabetes Mellitus: A Comparison of Manifestations in DM2 Patients with/without Neuropathy

Samanaeh Amini

بررسی تأثیر مداخله آموزشی مبتنی بر مدل ترانس تئوریکال بر فعالیت جسمانی بیماران دیابتی در ایران

Fatemeh Qorbani

Novel Anthropometric Indices as Predictors of Metabolic Syndrome: A Cross-sectional Study from Isfahan Cohort Study

Abolfazl Parsi Moud

Early detection of visual complications of type 1 diabetes mellitus in the pediatric population

Negar Hosseini

Investigating the association between diabetes mellitus with treatment failure and mortality in smear-positive TB patients: a case-control study

Monireh FaghirGanji

Examining the prevalence of anemia in patients with diabetes mellitus worldwide: A systematic review and meta-analysis

Shayan Alijanpour

The Role of Blood Pressure in Non-maturation of Arteriovenous Fistulas of Diabetic Patients, North of Iran.

پنل فناوری و کارآفرینی

16:00 – 18:00

تالار 2

مهندس محمد صفاریون

مدیرعامل آریوژن فارمد

دکتر ناصر اقدمی

مدیرعامل سابق شرکت سل تک فارمد

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
مهندس صفاریون_دکتر اقدمی	طه چرتاب محمدی	میلاد بهاری	المیرا علایی

Negin Fathi

عینک هوشمند الکترونیکی ویژه نابینایان و کم بینایان

Sahar Hajary

کیت تشخیصی مولتی اپیتوپ هلیکوباکترپیلوری

Reza Rezapour

دستگاه اتوماتیک وقابل حمل تشخیص نمره چشم با لنز مایع متغیر (EyeFit)

Afshin Moradian

طراحی سامانه نوبت دهی(اولویت بندی) واکسیناسیون (کرونا) و دارو براساس فاکتورهای خطرفردی (بانک اطلاعات واکسیناسیون ایران)

Asghar Asghary

دستگاه هشدار دهنده برای اصلاح وضعیت ارگونومی نامناسب بدن (ErgoFix)

Kiarash Saleki

methods of prevention, diagnosis & treatment (technology & biomedical engineering)

پنل کووید-19 شماره 2(درمان)

16:00 – 18:00

تالار 4

جهش ها و واریانت های جدید ویروس ها

دکتر محمد رضا صالحی

رئیس دانشکده پزشکی دانشگاه علوم پزشکی تهران

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر علی بهرامی فر	محمد زاهدی	پریسا ملکی دانا	منیره فقیر گنجی

Marzieh Fattahi

Effects of short and long-term exposure to air pollution on COVID-19 mortality and morbidity: A Systematic Review and Meta-Analysis

Morteza Ghafoorifar

Speaking and its effect on SpO2, Corona disease and the missing SpO2 ring

Raheleh Karimi

Persian risk scoring system for predicting hospital-based mortality between covid-19 patients

Taraneh Hoseinnezhad

The Role of HLA Genetic Variants in COVID-19 Susceptibility, Severity, and Mortality: A Systematic Review of Worldwide Allelic Frequencies

Samira Tardeh

A systematic review and meta-analysis of the venous thromboembolism prevalence and related risk factors in patients with Covid-19

پنل زنان و مامایی

16:00 – 18:00

تالار 5

روش های درمانی نوین در نازایی

دکتر آرزو اسماعیل زاده

فلوشیپ انکولوژی زنان

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر آرزو اسماعیل زاده	فاطمه کرمانی	هانیه یاور پور	منیژه پاکدل

Mohammad Zahedi

A Comparison between the effects of letrozole in combination with clomiphene verous letrozole alone on ovulation and pregnancy rate in infertile polycystic ovarian syndrome women: a clinical trial study

Faezeh Ramezanzadeh

عوامل موثر بر طول مدت درمان در بیوست عملکردی مادران باردار درمان شده با شربت فلوس

Nasim Maserat

بررسی ارتباط عوامل اقتصادی- اجتماعی با اختلالات وزن هنگام تولد نوزادان متولد شده در سال 1401 در شهرستان خلخال

Amir Valizadeh

The effects of Tacrolimus on pregnancy outcome in women with recurrent implantation failure (RIF) associated with immunologic factors: clinical trial study

Mahtab Lavi

بررسی تاثیر آروماتراپی مادران باردار با رایحه بهارنارنج بر آپگار نوزادان به هنگام تولد در عمل های جراحی سزارین انتخابی بیمارستان مطهری جهرم

Fatemeh Kermani

بررسی تاثیر کرم واژینال زیره سبز بر بهبود اختلال عملکرد جنسی و پریشانی جنسی زنان یائسه گناباد

Fatemeh Kermani

بررسی تاثیر کرم واژینال زیره سبز بر آتروفی واژن در زنان یائسه گناباد

Samereh Ghrlichkhani

The prevalence and dimensions of violence against women during pregnancy since the beginning of the COVID-19 pandemic: a systematic review and meta-analysis study

THURSDAY 5 OCTOBER

پنج شنبه

۱۳ مهرماه

پنل خون شناسی، سرطان و پزشکی شخصی

08:00 – 10:00

تالار 4

اگزوزوم های مشتق از تومور

دکتر حامد میرزایی

دانشمند یک درصد پراستناد

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر جواد قره چاهی	مهسا طهماسبی وند	محمد خانی عشرت آبادی	فرزانه ایروانی

Yousef Terme

Effect of Conditioned Medium Derived from Human Umbilical Cord-Mesenchymal Stem Cells on Neural Cells Apoptosis in Cuprizone Mice Model of Multiple Sclerosis

reza karbalaee

Investigating the anti-proliferative effects of mesenchymal stem cells carrying Coxsackie oncolytic virus in combination with ozone therapy and probiotic therapy with Lactobacillus casei in an experimental model of colorectal cancer

Niloofar Honari

The Protective Effects of Honey with Different Total Phenolic Content Against Cytarabine-Induced Hematological Changes in Rats

Fatemeh Ravaei

Sylimarin exerts the anti-hepatocellular carcinoma effects via Wnt, apoptosis, autophagy and angiogenesis pathways

Maryam Soleimani

Effects of Metformin on radio sensitivity of Breast Cancer cells changing the Expression of miR-21-5p/SESN1 Axis

Haniye Tavosi

Investigating the role of AhR-Notch signaling pathways in the induction of toxicity with arsenic trioxide (ATO) in breast cancer cell lines

Negar Mokhtari

Investigating the increased expression of INHBA in relation to the Tstage of the disease and its introduction as a diagnostic and prognostic biomarker in patients with colorectal cancer

Sara Tavakoli

Graphene/Cobalt oxide (Co3O4)/Neodymium oxide (Nd2O3) nanocomposites: Synthesis, characterization and its application in cancer

Maryam Nabigol

Evaluation of the effect of AML-derived exosomes on the expression of the genes involved in JAK/STAT signaling pathway (JAK-2, STAT-3, and STAT-5) in human bone marrow mesenchymal stromal cells

Fatemeh Zafarani

Expression Pattern of HOXC- HOXD Genes Family During Implantation Window After Salpingectomy In Patients With Hydrosalpinx

پنل بیماری های داخلی شماره 1

08:00 – 10:00

تالار 5

پیشرفت های حوزه درمان در نفرولوژی

دکتر بهزاد عین الهی

رئیس پژوهشگاه تحقیقات بالینی دانشگاه علوم پزشکی بقیه الله (عج)

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر محمد نیکپور اقدم	علی فنودی	فاطمه رفیعی	رامین انصاری

Shayan Alijanpour

The Maturation Time of Arterio-venous fistula in Chronic Kidney Disease Patients Under Antihypertensive Therapy regimes

Asra Moradkhani

Investigating the prevalence of anemia and its related Socio-Economic Inequality in the Dehgolan cohort population

Maziar Nikouei

The Prevalence of Renal Failure and its relationship with Physical Activity in the Dehgolan Prospective Cohort Study

Mahdi Maleki Aghdam

Evaluation of prescribing pattern of proton pump inhibitors in hospitalized patients in Imam Khomeini University Hospital, Urmia

Saeb Rezaei

بررسی تاثیر اجرای مدل خودمدیریتی پنج آ بر فشار مراقبتی مراقبین بیماران همودیالیزی

Barbad Karami

The Effect of pro-inflammatory diet on Liver Fibrosis: A Longitudinal prospective cohort study on PERSIAN cohort of Fasa, 2016-2021

Amirreza Yahyazadeh

تاثیر سن در زمان تشخیص بر بقای بیماران با کنسر مثانه

Barbad Karami

The Opioid Use disorder as a moderator of the association between metabolic syndrome and Non-Alcoholic Fatty Liver disease in PERSIAN Cohort of Fasa: A cross-sectional study

Masood Soltanipur

Evaluation of Cytokeratin-7 and Cytokeratin-19 expression relationship with Gleason score in prostatic adenocarcinoma

پنل طراحی واکسن

08:00 – 10:00

تالار رودکی

واکسن های نوترکیب

دکتر جعفر امانی

مدیر مرکز تحقیقات علوم میکروبی دانشگاه بقیه الله

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مرتضی طاهری انگنه	مریم السادات ماوایی	محمد صالح صفری	علی ریسمان باف

Seyyedeh fatemeh Mirmohseni

Designing a novel peptide-based vaccine candidate against stomach cancer using bioinformatics approaches

Mahan Farzan

Multi-epitope chimeric vaccine design against emerging Monkeypox virus via reverse vaccinology techniques- a bioinformatics and immunoinformatics approach

Seyyedeh fatemeh Mirmohseni

Are tumor peptide vaccines beneficial in the treatment of advanced gastric cancer? A systematic review

Mohamad Hosein Mohamadi

Design of an mRNA vaccine against post-stroke infection; An in silico study

Maryam Mashhadi abolghasem shirazi

Design and evaluation of a prophylactic HPV L2 RG1-based subunit vaccine containing "TLR4/5 agonists/tetanus toxoid as built-in adjuvants: An immuneinformatic and in silico structural study

Mahdi Zamani

In silico design and study of a chimeric vaccine construct based on Salmonella pathogenesis factors

Kiarash Saleki

Engineering a multi-epitope chimeric vaccine against brucellosis using advanced immunoinformatics approaches

Sepide Hozori

A Novel Potential Multi-Epitope-Based Vaccine Against Bordetella Pertussis: An Immunoinformtics and In-silico Approach

پنل تله مدیسین شماره 1

10:30 – 12:30

تالار 4

تله مدیسین،سلامت سیار و تکنولوژی های هوشمند

دکتر سعید اسلامی

استاد و رئیس گروه انفورماتیک پزشکی دانشگاه علوم پزشکی مشهد

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر اکرم ثناگو	آرین غمخوار	زکیه السادات حسینی	زهرا کیوانلو

Nafise sadat Imani

Mobile Dental Care Services and Elderly Oral Health: A Systematic Review

Haniyeh Shadin

تأثیر آموزش خود مراقبتي به روش اپلیکیشن تلفن های هوشمند بر سبک و کیفیت زندگی مبتلایان به بیماری های التهابی روده

Fateme Molaalinejad

طراحی و ایجاد برنامه کاربردی خود مراقبتی از پوست

Aynaz Esmailzadeh

Investigating the role of Mobile Health in teaching self-care for Psoriasis disease: A systematic review

Hossein Valizadeh Laktarashi

Mobile Health Applications for Low Back Pain (LBP) Self-management: A Systematic Review

Mobina Fadaei

Investigating the role of Mobile Health in teaching self-care for Periodontitis disease: A systematic review

Zahra Seyfi

Designing A Data Set for An Endometriosis Self-Care System, Based on A Literature Review

Negar Ghashghaei

Investigating the role of Mobile Health in teaching self-care for celiac disease: A systematic review

پنل پرستاری شماره 1

10:30 – 12:30

تالار 5

توسعه خودآگاهی حرفه ای در پرستاری

دکتر علیرضا نیک بخت

نایب رئیس انجمن علمی پدیده شناسی علوم سلامت ایران

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مهدی جعفری عوری	امیر حسین گودرزیان	علیرضا سلمانی	علی صفدری

Ahmadreza Fallahfaragheh

Challenges Of Artificial Intelligence "Chat GPT" In Nursing Education and Nursing Care: A Systematic Review Study

Zahra Nemati

The effect of rapid rehabilitation nursing intervention on patients undergoing laparoscopic surgery: A systematic review

Amir Hossein Saeidi

بررسی تاثیر رایحه درمانی اسطوخودوس بر دقت دانشجویان پرستاری در آزمون ساختار یافته عینی

Amin Ehsanian

Effective home care nursing interventions to improve the quality of life of patients with spinal cord injury: A systematic review

Fateme Aghabozorg Haddad

بررسي ارتباط استرس ادراک شده و تعدیل‌گر تاب آوری پرستاران شاغل در بخش های مراقبت ویژه کووید-19: یک مطالعه توصیفی- مقطعی

Matina Rajaee

The effect of planned training on the hope and anxiety of relatives of mechanically ventilated patients

پنل مطالعات نظام سلامت

10:30 – 12:30

تالار رودکی

یافته های نوین در نظام سلامت

دکتر کامران باقری لنکرانی

رئیس مرکز تحقیقات سیاستگذاری نظام سلامت

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر محمد جواد بهزاد نیا	سارا عابدی کوشکی	نشمیل قدیمی	منیره فقیر گنجی

Elaheh Sanjari

خوشه بندی وضعیت اقتصادی جمعیت شهری مطالعـه ی کوهـورت شهرکرد با استفاده از روش خوشه بندی حول مدوئید

mostafa eslamimahmoudabadi

Gender differences and age-related Gray Matter volume and white changes of the human brain in Iranian Population: A diffusion tensor magnetic resonance imaging study

amirmohammad dehghan

Investigating the effect of the corona pandemic on the pattern of drug consumption in the outpatient prescriptions of one of Islamic Republic of Iran's insurance organizations in 2019

Alireza Nikkhah

ECG Paper Records Digitization: A new approach to detection of cardiovascular diseases

Samira Mohammadi

The relationship between self-concept and resilience in dialysis patients of Ali Ibn Abi Talib Hospital, Zahedan, 1399-1400

Pardis Mohammadzadeh

Socioeconomic inequalities in metabolic syndrome and its components across a sample of Iranian Kurdish adults

Mahdi Khosravi

Does more knowledge result in more usage of herbal medicine? A comprehensive study among Iranian Medical and non-medical students.

12:00 – 14:00 International panel

My dream road: immunology as bridge of clinical researches and basic sciences

Dr.Hasan Abolhasani

Specialist in immunogenetics and clinical immunology from Karolinska university , Sweden
Top 1% scientist

Panel Manager	Student Referee	Student Referee
Dr.Hasan Abolhasani	Dr.Mohammad Hosein Khosravi	Hossein Hasan Pour

Uladzislau Kanchak

An innovation device for feeding patients with mouth opening restriction

Uladzislau Kanchak

Psychological atmosphere in healthcare organizations during the COVID-19 pandemic

Sanaz Sabzehei

Conformational variability in pure samples of recombinant PrPSc prion strains

Olga Frolova

Galvanic corrosion of dental alloys

Shabnam Saleh

Intracanal disinfection and medicaments in regenerative endodontics

Siamak Sarrafan

Lifelong Learning among Older Adults in Malaysia

Vladislav Ochkovskiy

Varyantive anatomy of human esophagus

Mahdi Shuaibu

Malaria in Africa: Why it's yet to be eliminated

Mohammed Namiq Amin

Anti neuropathic effect of Astaxanthin in a rat model of chronic constriction model

Masoumeh Akhlaghi

Investigating the relationship between blood groups of pregnant mothers with pregnancy and newborn complications

پنل بیوتکنولوژی دارویی

13:30 – 15:30

تالار 1

روش های نوین در تولید دارو های نوترکیب

دکتر رمضانعلی طاهری

مدیر پژوهشکده علوم دارویی و فناوری های سلامت دانشگاه بقیه الله

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر رمضانعلی طاهری/ دکتر لادن دیانی	حسین بیگانه	مریم السادات ماوایی	نیوشا اسماعیل زاده

Pouriya Rezaei

Computational design of some Orexin receptors antagonists through structure and ligand-based virtual screening

Zahra Samadi moghaddam

Nanocomplex Formation between CpG and HPV16 E7 Epitope Exhibits Therapeutically Efficiency for Cancer Immunotherapy

Zahra Alidousti Shahraki

Co-Expression with Chaperones for Improvement of Soluble Expression and Purification of a Tandem Bispecific scFv Antibody in Escherichia Coli

Fahim Zhulideh Zadeh

Investigating the anti-melanogenic effects of synthesized quinol compounds on B16/F10 cancer cell line

Behnam Ghamamy

Evaluation of the Pharmacokinetic parameters of HB5 aptamer modified Imatinib liposomes

Mohammadreza Motamedi

Virtual Screening Strategy to Predict HSP90 Inhibitors as Anti-Cancer Agents

Maedeh Sarvari

The role of p53/miR-34a/SIRT1 feedback loop in metformin-induced radio sensitivity of colorectal cancer cells

پنل علوم اعصاب و روانشناسی شناختی(علوم پایه 1)

13:30 – 15:30

تالار 2

تازه های علوم اعصاب و ارتباط آن با فناوری های جدید

دکتر هدایت صحرایی

استاد دانشگاه علوم پزشکی بقیه الله

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر محمد رضا خزدیر	یسری عزیز پور	هومن زارعی	نرجس صدیقی

Sabah Madadi

Comparison of Skull Bone Morphology in CT Scan Images and Dry Bones in a Selected Iranian Population

Amin Zolfaghari

Expression of myelin-related genes in the cerebellum of cuprizone-induced chronic demyelination in C57BL/6 mice

Asiye Salehzade

Evaluating the effect of gabapentin on dexamethasone-induced depressive behavior in mice

Amin Zolfaghari

Evaluation of parameters of oxidative stress in the cerebellum of the C57BL/6 mouse model of chronic demyelination

Ava Aghaei

Separated and combined administration of Folic acid and B6 enhances cognitive function in a rat model of scopolamine-induced neurodegeneration: A behavioral, molecular, and biochemical study

پنل تغذیه شماره 1

13:30_15:30

تالار 3

الگوهای نوین رژیم غذایی در پیشگیری از عوارض دیابت

دکتر لیلا آزادبخت

دکترای تخصصی (Ph.D) علوم تغذیه

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر محمد نجاتیان/دکتر نسیم خورشیدیان	حمید رضا رزمی	سمیه فتاحی	محمد رضا امینی

Bahare Safarian

The association of pro-inflammatory diet with Diabetes in PERSIAN Cohort of Fasa: A Cross-sectional Study

Sahar Foshati

Effects of Ginger Supplementation on the Frequency and Severity of Gastrointestinal Symptoms in Patients with Multiple Sclerosis: A Double-Blind Randomized Placebo-Controlled Trial

Amirmahdi Fotouhi ardakani

ارتباط بین دریافت پروتئین رژیم غذایی و خطر ابتلا به دیابت نوع 2 در بزرگسالان: یک مرور سیستماتیک و متاآنالیز دوز-پاسخ بر روی مطالعات کوهورت آینده نگر

Shakila Ansari

Lacto-vegetarian Dietary Score (LVDS) reduced the risk of Post-Menopausal Osteoporosis in a sample of Iranian Post-Menopausal women: a case-control study.

Mahdi Vajdi

The effect of chamomile supplementation on lipid profile in adults: A systematic review and meta-analysis

MohammadReza Amini

What is the influence of policosanol supplementation on liver enzymes? A systematic review and dose-response meta-analysis of randomized controlled trials

پنل تله مدیسین شماره 2

13:30 – 15:30

تالار 5

تله مدیسین، سلامت سیار و تکنولوژی های هوشمند

دکتر سعید اسلامی

استاد و رئیس گروه انفورماتیک پزشکی دانشگاه علوم پزشکی مشهد

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر اکرم ثناگو	نیلوفر چوبین	محمد عرب سرخی	ثریا معمر

Maryam Maree

Using Telemedicine to provide health services in Prison: A Systematic Review

Zohreh Javanmard

Investigating the role of clinical decision support systems in reducing medical errors

Elham Haghshenas

طراحی پرسشنامه بررسی نگرش، میزان استفاده و تمایل افراد به استفاده از خدمات پزشکی از راه دور

Mahdi Rafiee

Diagnostic accuracy of a three-lead portable ECG device for measuring electrocardiogram intervals

Mohammad Amin Forqani

Evaluation of HAPPYneuron®, a Computerized Cognitive Training Medium, as a Tool for Remediation of Cognitive Impairments: A Systematic Review

Haniyeh Ansari Fard

The impact of using digital health to control blood pressure in the covid-19 pandemic: a systematic review

Zohreh Javanmard

بررسی نقش سیستم های پشتیبان تصمیم در مدیریت کووید-19: مرور سیستماتیک

Elahe Salimi

Investigating the Role of Mobile Health in Lupus Self-Care Education

پنل اختراعات

13:30 – 15:30

تالار 7

نوآوری های علوم پزشکی

دکتر میترا امینلو

مدیر مرکز مدیریت مالکیت فکری

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مسعود قربانی	یاسمن مهدی زاده	محمد مهدی	اطهره نذری

Nastaran Dezhgam

پرفوراتور جمجمه با قابلیت ساکشن و ایریگیشن و ذخیره بافت های جدا شده

Arash Rezvan

جوراب واریسی محافظتی، مغناطیسی، ماساژوری وتشخیصی وتحریکی عضلات ساق پا

Hashem Fathi

گارو-گایدر رگیاب جک تراید تنظیمی اتو باد شونده با محوریت انتقالی هوا در مسیر و فیکس دامنه حرکتی

Iraj Baratpour

دستگاه توشه رکتال تحریکی "فمک"

Ali Delgarm ShamAbadi

دم پایی- جورابی محافظتی بهداشتی الکترومغناطیسی تشخیص دهنده و گرم کننده دیابتی

Ramyar Rahimi Darebagh

سیستم ضدعفونی کننده آب مبتنی بر نانوکامپوزیت C/ZnO

پنل نورولوژی و ENT

13:30_15:30

تالار 8

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مصطفی الماسی	سمیرا تردە	سید حسین اوجی	احسان دادگستر

Moojan Forouzandegan

Cerebrospinal Fluid Neuronal Pentraxin-2 as a Potential Biomarker in Alzheimer's Disease: A Systematic Review and Meta-analysis

Fateme Habibi

Melatonin as a potential therapeutic agent for tinnitus

Mohammad Taha Akbari

The Association between radiological, clinical and cognitive indices in Multiple sclerosis patients

Amirhossein Babaei

The application of bone allograft in mastoid obliteration after mastoidectomy

Hossein Pourmontaseri

The efficiency of Modified Richmond Score(MRS) in prediction of in-hospital and 6-month mortality and favorable outcome in Traumatic Brain Injury patients: A Cohort study in Emtiaz Hospital of Shiraz, 2016-2020

Seyedhossein Owji

Factors affecting surgical outcome of tympanomastoidectomy

Danial Chaleshi

The Value of Ultrasonography in Diagnosis of Carpal Tunnel Syndrome

قلب و ریه(داخلی 2)

16:00 – 18:00

تالار 1

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر بهنام دلفاردی / دکتر حمید صالحی نیا	امیر مسعود جعفری	فاطمه رفیعی	محمد پور فریدونی

Reza Mohammadpourhodki

Effects of Psychological Interventions on Pain, Anxiety in Patients Stroke Admitted to Intensive Care Units: A Parallel Randomized Clinical Trial

Parsa Hedayati

Is hemoptysis unexpected during angiography? A case report

Shayan Alijanpour

Intravenous Alteplase, Outcome and Follow-up of acute stroke patients; Stroke Care Center of North of Iran

Mahin Nomali

Performance of the models predicting 10- year risk of cardiovascular diseases in Asia: A systematic review and prediction model meta-analysis

Sadaf Rahimian

The Association between anthropometric indices in people with Cardiovascular disease and stroke: based on Rafsanjan Cohort study

Ali Razei

Transcriptomic profiling of Peripheral Blood Mononuclear Cell in mustard lung by systems biology approach

Ali Razei

Analyzing the transcriptome data from lung biopsies and leukocytes of COPD patients using a systems biology approach in order to obtain a sampling pattern

فناوری های نوین دارویی،طب مکمل و گیاهان دارویی (علوم پایه 3)

16:00 – 18:00

تالار 2

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر وجیهه اکبری	روح الله احمدیان	جمال امری	مریم مسکینی

Azar Bazrgaran

Green synthesis and characterizations of silver nanoparticle using alcoholic extract of Astragalus sarcocolla gum and evaluation of antibacterial, antifungal and antioxidant activities

Sarvin Sadreddini

Evaluation of anti-diabetic effects of Marrubium parviflorum on streptozotocin-induced male mice

Pegah Mardaneh

Prediction of cytotoxic activity of quinoline derivatives as possible inhibitors of c-Met using molecular fingerprints

Arian Ghannadi Karimi

Wound healing improvement by using Polycaprolactone biodegradation nanofiber scaffold (PCL) with propolis in the rat model

Mobina Farnoosh

Strategies to improve of enzymes thermostability

Mohammad Mohammadibolbanabad

بررسی توزیع و تاثیرات سمی نانوذرات نقره بر تغییرات بافت قلب در رت‌های نر ویستار

پنل تغذیه2

16:00 – 18:00

تالار 3

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر یاسر خواجه بیشک	امیر حسین دادوندی	شیما مرادی	محمد حسن سهولی

Sara Arefhosseini

HIF1α Gene Expression and Atherogenesis: Role of Myo-inositol Supplementation in Patients with NAFLD

Niloufar Rasaei

The association between long non-coding RNA MALAT1 and TUG1 with metabolic syndrome among overweight and obese women

Hossein Pourmontaseri

The effect of glycemic load on the plasma glucose level among healthy individuals: A prospective Cohort study, PERSIAN Cohort of Fasa, 2016-2021

Shima Moradi

The dietary pattern in relation to non-alcoholic fatty liver; an umbrella review of meta-analyses of observational studies and intervention trials

Niloufar Rasaei

The interaction between long non-coding RNA MALAT1 and TUG1 with dietary fatty acid quality indices on visceral adiposity index (VAI) and body adiposity index (BAI) in overweight and obese women

Parisa Jalali

The effects of Garcinia cambogia (hydroxycitric acid) on lipid profile: A systematic review and meta-analysis of randomized controlled trials

Matin Sepehrinia

Evaluation of the Relationship Between Pro-Inflammatory Diet and Hypertension: A Cross-Sectional Study

پنل سبک زندگی،باروری و ناباروری(علوم پایه 2)

16:00_18:00

تالار 5

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر انسیه جنابی/ دکتر هادی اسمعیلی	حسین عینی	موهبت والی	سعید سمائی نسب

Parmis Notghi

The effect of Atorvastatin on serum biochemical and inflammatory factors on the primary ovarian insufficiency (POI) induced by Cyclophosphamide in rats

Mohammad Abbasi Bafetrat

جدایی از مادر در بدو تولد، باعث افزایش پاسخ به محرک دردناک در دوران بزرگسالی در موش های نر می‌شود

Sepideh Ochi ardabili

بررسی اثر نانو ذرات اکسید روی سنتز شده با عصاره هیدروالکلی سیاه دانه بر تغییرات هیستوپاتولوژیکی بافت بیضه در موش های تحت تیمار با سیس پلاتین

Alireza Karimpour

بررسی اثر گالیک اسید بر غلظت سرمی هورمون های کمرین و امنتین در موش های صحرایی نر نرمال و چاق

Hosein Ataei Goujani

Exploring the Protective Effect of Aurapten Treatment during Pregnancy on Autistic-like Behavior in Mouse Pups: Insights into Reelin Signaling and Oxidative Stress

Zahra Mohammadzadeh

بررسی فعالیت لیپوتروپیک عصاره آبی بذر ریحان در موش های صحرایی نر تغذیه شده با رژیم غذایی نرمال و پرچرب

Mahtab Lavi

Investigation of Lipotropic activities of aqueous extract of Dactylorhiza maculate in wistar rats fed a normal and fat-enriched diet

Romina Ghazi mirsaid

Investigation of Trichophyton mentagrophytes-Trichophyton interdigitale complex infections and their antifungal susceptibility patterns in Razi Hospital, Tehran, Iran, 2021-2022

NASIM KHANAHMADI

Identification of Trichomonas vaginalis species in Northern Iran using PCR-Sequencing

پنل بهداشت عمومی

16:00 – 18:00

تالار 7

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر مهدی وثوقی	سقراط عمری	علیرضا علا	سعید رجبی

Seyed Aref Sajjadi

Investigating the state of mental health and access to mental health services among people with disabilities in Kurdistan province in 2022

Fatemeh Esmaeili shahri

تخریب و حذف فتوکاتالیستی رنگ کاتیونی کریستال ویوله با استفاده از هتروجانکشن

Kiana Rezaeipour

پیش‌بینی میزان صدا با استفاده از مدل سازی شبکه‌های عصبی مصنوعی و روش های آماری در صنعت نجاری

Aida Ahmadpour

ارزیابی رابطه اعتیاد به اینترنت و کیفیت خواب در دانشجویان علوم پزشکی گناباد

Zahra Keyvanlo

Epidemiological Characteristics of brucellosis in Sabzevar city during 1390-1400

Ramin Rahmani

ارزیابی وضعیت استرس شغلی و ارتباط آن با مواجهه روزانه با صدا و ارتعاش در رانندگان اتوبوس های درون شهری همدان

Sajad ghalami

The effect of accreditation on job productivity from nurses' perspective in an educational hospital in Tehran

Saedeh aliyari

Identifying and prioritizing the strategies for costs containment and revenue increase in Iranian military hospitals

Hakime Ghadiri hakim

Investigation of frequency of pediatric drug hypersensivity admitted in Akbar and Ghaem hospital in 10 years

mohsen abasi faragi zadeh

Documenting and recording the experimental knowledge of the Virology Research Center in RT-PCR diagnosis

پنل پرستاری شماره 2

16:00 – 18:00

تالار 8

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو	داور دانشجو
دکتر میترا زندی	رضا قربانی نوقابی	علی حاتمی	آرین میر شاهی

Negar Hosseini

Comparison of the effect of virtual reality with two approaches of distraction and educational film on anxiety and hemodynamic parameters in patients undergoing cardiac angiography

Mahdi Badiee Gavarti

Bullying in medical school; A cross-sectional study from Iran

reza mohammadi

اثربخشی برنامه مراقبت معنوی گروهی بر امیدواری و اضطراب بیماران لوسمی

Saeed Ghasempoor

The Effect of spiritual reminiscence therapy on depression in the elderly living in Shahroud City: A quasi-experimental study

Seyedreza Mirsoleymani

The Relationship Between Caregiver Burden Inventory and the Family Distress in Iranian family caregivers of cancer patients.

پنل های پوستر

International Annual Research &
Technology Congress of Iranian
Medical Sciences Students

۱۲ تا ۱۴ مهرماه ۱۴۰۲

سالن همایش‌های برج میلاد

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WEDNESDAY 4 OCTOBER

چهارشنبه

۱۲ مهرماه

پنل خون شناسی، سرطان و پزشکی شخصی

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر الهام صفرزاده	عطیه قربان پور	محمدخانی عشرت ابادی

Erfan Zare

Bioinformatics Analysis of Prognostic Value of MAP4 as Novel Key Gene in Breast Cancer

Fatemeh Barzegar Paraei

In silico design and validation of an immune-mediating protein against Varicella Zoster Virus (VZV) by computational immunology approaches

Milad Asghardoust Rezaei

Evaluation the anti-proliferative effects of wild-type Newcastle disease virus on lactate dehydrogenase secretion and induction of apoptosis in A549 cells

reza karbalaee

Evaluation the potency of wild-type Echovirus on lactate dehydrogenase

Alireza Hatami

The effect of Plerixafor on the neutrophil count in Myelokathexis patients, a systematic review

Yekta Jahedi tork

Therapeutic effects of L-carnitine against an amyloid-bets induced rat model of Alzheimer's disease: a behavioral study.

Paniz Sadafi

Effect of Human Umbilical Cord Matrix Stem Cell Conditioned Media on Elevated Maze Plus Behavioral Analysis in Mice Model of Multiple Sclerosis

Mehdi Baloochi

The Effects of Exosome Therapy in Animal Models of Parkinson's disease. Meta-Analysis

Nafise Moosavi

Evaluation of anti cancer effect of a tandem diabody against PD-1 and CTLA-4 on breast cancer cells

Ehsan Baghban

Therapeutic potential of mesenchymal stem cells exosome in AML: A Systematic Review

پنل علوم اعصاب و روانشناسی شناختی

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر ابولفضل اکبری	محمد صالح صفری	ابوبکر جعفر نژاد

Reza Panahizadeh

Royal Jelly Improve Anxiety-Like Behavior and BDNF Expression Following Chronic Stress Exposure in Male Rats

Muhammad hamed Rashidi

Comparing the pharmaco-mechanism of analgesic effects of cinamaldehyde and resveratrol in chronic neuropathic pain

Zahra Navabi

The effects of formulated cinnamaldehyde on the activity of thalamic neurons and pain responses in the neuropathic pain in rat

Fatemeh Zali

The role of α2-adrenoceptors of mPFC on stress-induced analgesia during inflammatory and tonic pain in rat

mehdi abdolrashidi

The effects of intracerebral injection of phenylephrine on inflammatory and tonic pain in rat

Setayesh Mirimoghaddamferiz

Curcumin plays a protective role against oxidative damage in brain tissue of rat during chronic exposure to chlorpyrifos

Shirin Rezazadeh

Investigating the effects of chronic partial sleep deprivation and sleep pattern disturbance on liver function in rats

Hadis Razmaray Iranaq

در مدل موش بیماری مالتیپل اسکلروزیس: مطالعه مرور نظام مند تاثیر مکمل ملاتونین روی شاخصClinical severity

Ava Aghaei

Separated and combined administration of Folic acid and B6 enhances cognitive function in a rat model of scopolamine-induced neurodegeneration: A behavioral, molecular, and biochemical study

پنل تغذیه و سبک زندگی

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر میثم عالی پور	مهدی وجدی	سمیه فتاحی

Kimia Kargarfard

اثر عصاره هیدروالکلی بذر ریحان بر بیان ژن و فعالیت لیپوپروتئین لیپاز بافت چربی موش های صحرایی

Shadi Otroshi

بررسی اثر لیپوتروفیک افدرا بر غلظت تری گلیسیرید و کلسترول تام بافت کبد و مدفوع موش های صحرایی نر نرمال و تغذیه شده با رژیم غذایی پرچرب

Sobhan Tahamtan Doghozlou

بررسی اثر گالیک اسید بر غلظت سرمی هورمون رزیستین در موش های صحرایی نر نرمال و چاق

Masoome Qanbari

Toxicological effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on thyroid function: a systematic review and meta-analysis of animal studies.

Vida Khalafi

بررسی اثر عصاره هیدروالکلی پنجه شیطان بر بیان ژن و فعالیت لیپوپروتئین لیپاز بافت چربی موش های صحرایی نر نرمال و تغذیه شده با رژیم غذایی پرچرب

Zohre Rajabpour

بررسی اثر لیپوتروپیک گالیک اسید بر غلظت تری گلیسیرید و کلسترول تام بافت کبد و مدفوع موش های صحرایی نر نرمال و تغذیه شده با رژیم غذایی پرچرب

Hadis Eftekhari

The effects of pioglitazone and rosiglitazone on liver function in hypothyroid rats

Farid Ajori

بررسی میزان فراوانی کرم دیکتوفیما رناله در سگ سانان کشته شده در تصادفات جاده ای شمال کشور

Parmis Notghi

The effect of Atorvastatin on the apoptotic and angiogenesis genes expression in the ovarian tissue and serum levels of total antioxidant capacity and malondialdehyde in rats after induction of primary ovarian insufficiency by Cyclophosphamide

پنل باروری و ناباروری

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر انسیه جنابی	حسین عینی	عطیه ال احمد

Zahra Roostaee

In vitro effect of N-acetylcysteine on motility, DNA integrity and chromatin integrity of human sperm

Mohammad Jannatdoust

Effect of curcumin on sperm parameters in spinal cord injury in a contusion model of rat

Ali Parvin

Computational Analysis of Nonsynonymous Single Nucleotide Polymorphisms (nsSNPs) in Genes Associated with Male Infertility

Negin Zatalian

The Effect of Cyclophosphamide on Ovarian Reserve Reduction via the PI3K/AKT/mTOR Pathway: A Systematic Review of in Vivo Original Articles (from 2016 until Now)

Parsa Sameei

The Effects of Zinc Supplementation and Treadmill Exercise During Pregnancy on Prenatal Stress-induced Memory and Learning Deficits in Young Male Rat Offspring

sobhan eisazadeh

Inhibitory effects of heat-killed culture supernatant of Bacillus coagulans against CT-26 colon cancer cells

پنل پزشکی شخصی شماره 1

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مرتضی باقری	اتوسا قربانی	مریم مسکینی

Zahra Nasiri Moghaddam

Association of the Angiotensin Converting Enzyme Gene Deletion/Deletion (D/D) Genotype with Risk of Autosomal Dominant Polycystic Kidney Disease Among the Iranian Population (West Azerbaijan Province of Iran)

Shabnam Bahrami

Investigating the effects of Lactobacillus casei probiotic in combination with Ziziphus jujube hydroalcoholic extract and Pistacia atlantica gum on cell appearance and inflammatory cytokines expression in ulcerative colitis experimental model

Amirhossein Abedini

The impact of food additives on the production of personalized foods with 3D printer technology: A systematic review

Radman Amiri

Evaluation of the Appropriate Size of Follicles on Double Intrauterine Insemination in Controlled Ovarian Hyperstimulation Cycles

Reihane alsadat Sharif

Digital Twins in Personalized Medicine for Healthcare Revolution through Cutting-Edge Applications: A Systematic Review

Mahsa Safaei

پنجره ای جدید در درمان ضعف استخوان در فرآیند ایمپلنت ، DPSCs

Kimia Ghaderi

Evaluation of the Anti-Cancer Effects of Sodium Alginate Polyhedral Oligomeric Silsesquioxane Bionanocomposite Containing Berberine Chloride in Breast Cancer Cells

hedie bahrifar

Diagnosing Colorectal Cancer Using Microbiomes Obtained From Stool Samples

Fateme Akhavan behabadi

Preparation and optimization of Mupircoin nanosuspensions by the use of Box-Behnken design and utilizing it in forming nanofibers

Zahra hoseini

Scrophularia striata extract ameliorates gentamicin-induced nephrotoxicity in rats

پنل روش های نوین تشخیصی

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مسعود قربانی	موهبت والی	رامین رحمانی

Zahra Akhoondzadeh

Exosome therapy a promising treatment for Triple Negative Breast Cancer

Araz Rahimi

6-Mercaptopurine Monitoring by Smartphone Colorimetric Sensor Based on Silver Nanoprisms Shape Transformation

Amirhossein Zare

Evaluation the effect of insole with longitudinal arch support on foot kinematics in children with flexible flat foot who have undergone subtalar arthroeresis

Saba Ghasemi Asl

The effect of pH and beta-cyclodextrin on solubility and solution stability of piroxicam cocrystals

Mostafa Salimi

Applying Virtual Reality for Rehabilitation in COPD Patients: Systematic Review and Meta-analysis of Randomized Controlled Trials

Sumaia sardar M salih

Design and Formulation of Mucoadhesive Buccal Nanofilm of Pramipexole and Evaluations of Their Physicochemical Properties

Mahsa Khodadadi

Developing an analytical method for quantification of trientine based on modified silver nanoparticles

ali zareie

کاربرد آپتامر در شناسایی سرطان پروستات: مطالعه مروری نظامند

Hadi Salehpour

Shedding Light on Epilepsy with AI and fMRI: A Systematic Review

پنل تله مدیسین شماره 1

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر اکرم ثناگو	سارا عابدی کوشکی	آرین غمخوار

Mohammad Moein Tootestani

آموزش بیماران به شیوه پرستاری از راه دور (تله نرسینگ)

Zohreh Javanmard

Investigating the awareness and attitude of medical staff about telemedicine in teaching hospitals of Ferdows city

Mohammadreza Ghabel

studying the accuracy and reliability of diagnosis in teledermatology

Rauf Rostami

A systematic review of evaluating the effectiveness and safety of telerehabilitation in patients who have undergone total knee arthroplasty

Samin Bakhshalizade

بررسی اثرات تله مدیسین در مراقبت تسکینی از بیماران مبتلا به سرطان: مرور سیستماتیک

Najme Golmakani

بررسی اهمیت مراقبت از راه دور (تله نرسینگ) در پاندمی کووید-19

Marsa Gholamzadeh

Attitudes and Willingness to use telemedicine in post-COVID era

Mahboobeh Zadegi

آمادگی ارائه دهندگان مراقبت های بهداشتی برای پذیرش (EHR) پرونده ی الکترونیک سلامت

Pouria Farrokhi

Barriers to the development of telemedicine from physicians and clinical staff's perspectives in Iran: a systematic review

پنل دهان و دندان

14:00 – 16:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر کامران آزاد بخت	سیده فاطمه سلیمی	زهرا سادات آقامیر

Mohammad Hossein Nikbakht

Report of a case with mesiodens and an odontoma like malformation

Mahsa Fouladi

بررسی اثر کیورینگ دستگاه‌های‌لایت‌کیور مختلف بر ریزسختی کامپوزیت‌های رنگ بلیچ

Mahsa Fouladi

ارزیابی تظاهرات دهانی در بیماران مبتلا به دیابت ملیتوس نوع دو با نوروپاتی محیطی

Mohammad reza Saghafi

مقایسه تاثیر منیزیم سیترات خوراکی بر اسپیرومتری بیماران مبتلا به آسم : کارآزمایی بالینی دو سو کور

Mohammad reza Saghafi

مقایسه شاخص های اسپیرومتری در بیماران مزمن انسدادی ریه مصرف کننده ی مواد افیونی استنشاقی در زاهدان

zahra Naghizadeh

Investigating the antimicrobial effects of niosome nanoparticles containing turpentine extract on Streptococcus mutans

Mahdiyeh Valimanesh

Photodynamic therapy with nano curcumin effect on collagen cross-link and mineral content of human dentin

Pardiss Ebrahim nezhad

Comparison of the effects of modified bass and vertical brushing methods in 2 and 5 minutes on periodontal plaque index in dental students of Kurdistan Medical Sciences.

Erfan Mahmoudian

Comparison of Sealing Ability of MTA and Cold Ceramic by Using Dye Penetration Method; an In-Vitro Experimental Study

پنل طب مسافرتی

16:00-18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر سلمان برسته	بهنام مرادی	حامد سلیمانی

Hero Hamzehpour

تبیین علل انتخاب و نحوه آشناسازی گردشگران پزشکی در ایران: مطالعه کیفی

Amir Valizadeh

Genetic Study on Road Traffic Accidents: A Systematic Review

Alireza Ala

Investigating the importance of travel medicine and health tourism in the world: A systematic review

Negin Shahi

چشم‌انداز توریسم سلامت در ایران

Ameneh Jafarinodooshan

بررسی موانع توسعه گردشگری سلامت در ایران و نقش رسانه های تصویری بر گردشگری سلامت

پنل طب سنتی شماره 1

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
مهدی زروندی	محمد صادق عادل مهربان	میلاد دودانگه

Fatemeh Delir

Investigating the Impact of Broadleaf Plantain on Wound Healing and Inflammation

Samina Soltani

Mucuna pruriens, a Complementary Medicine for Parkinson's Disease: a Systematic Review of Preclinical Animal Studies

Mohaddese Heydari

بررسی اثر آنتی ملانوژنیک عصاره ی آبی وهیدرو الکلی B16F10 اندام هوایی گیاه علف چشمه (بولاغ اوتی NASTURTIUM Officinale) بر رده ی سلولی

Reza Ghasemi

Evaluation of the anti-tumor effects of Falcaria vulgaris extract in the mouse model of breast cancer

Soheil Ashouri

بررسی انواع مزاج با استفاده از شاخص های آنتروپولوژی در مردان سالم 20 تا 30 سال

Ramin Ansari

Evaluating the Safety and Efficacy of a Poly-Herbal Formulation from Traditional Persian Medicine (TPM) in Patients with Calcium Kidney Stones: A Randomized, Double-Blinded Clinical Trial

Ahmad Bavali Gazik

Investigating the effect of aromatherapy with rose water on anxiety and hemodynamic factors in patients who are candidates for cardiac angiography in Razi Hospital in 2019

پنل علوم اعصاب و روانشناختی شماره 2

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر زهرا بهاری	سعید سمائی نسب	نرجس صدیقی

Fatemeh Kefayat Manesh

The effects of hydroalcoholic extract of Eucalyptus leaves on experimental inflammation and pain due to injection of formalin in male rats

Neda EsmaeilNaeini

Simultaneous effects of melatonin and N-acetylcysteine (NAC) on TNF-a in the rat cerebral ischemia model

Iman Kheirollahi

Protective effect of Gallic acid against anxiety-like behavior, cognitive impairment, and long-term potentiation deficits induced by scopolamine

Fatemeh Ghorbani

Synthesis and characterization of CO3O4/Nd2O3 nanoparticles and their anticancer effects

Faezeh Ebrahimi Zadeh

بررسی اثر ضد دردی عصاره هیدروالکلی هسته خرمای شاهانی جهرم در مدل درد حاد و مزمن و مقایسه با ایبوبروفن و مورفین در موش صحرایی نر

Narin Allahvaisi

The role of Presenilin gene in neuronal differentiation

Bahar Hasanpour

The effect of gallic acid on the level of malondialdehyde and proinflammatory cytokines in the cerebellum in Rat Model of the hepatic encephalopathy

Nafiseh Faraji

The protective effects of thiamine on learning and memory impairment induced by beta-amyloid injection in an Alzheimer's disease model of male rats

پنل طب مکمل و گیاهان دارویی

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر حمزه علیپور	نیوشا اسماعیل زاده	علی ریسمان باف

Mina Kiani

Evaluating the Effect of Empagliflozin on Sex Hormones and Oxidative Stress Markers in Rats with Type 2 diabetes

Mahdi Honarbakhsh

Protective effect of sumac extract (Rhus coriaria) against heart, kidney and liver damage caused by doxorbsin in male rats.

Mohammadsina Alikhani

Biofilm formation and virulence gene expression of Uropathogenic Escherichia coli after exposure to cranberry extract

Yousef Khadivi

Determining the optimum Octanol-water partition coefficient of Kojic acid for the formulation of skin products

Melika Kolahdoozan

Antioxidant activity of extracted alginic acid from Sargassum angustifolium brown algae based on its chemical structure

Amirali Ebrahim Babaei

Alamandine Ameliorates Doxorubicin Induced Hepatotoxicity in Rats

Fatemeh Asgharzadeh Marghmaleki

بررسی اثرات ضددردی و ضدالتهابی بذر گیاه اسپند در موش سوری نر

Amirali Ebrahim Babaei

The Polypodium vulgare L hydroalcoholic extract effect on epileptic seizures induced by pentylenetetrazole and comparing it with the effect of sodium valproate in animal model

Amir Masoud Jafari-Nozad

The protective effect of curcumin against cardiotoxic effects induced by chlorpyrifos exposure

Farima Razavi

Hepatoprotective effect of N-acetylcysteine against deltamethrin-induced liver damage in mice

پنل پزشکی شخصی شماره 2

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر محمد جواد قره چاهی	زهرا تقی نژاد	سوگند عباسی عزیزی

Hadi Vahedi

Evaluation of effect of infrapattelar adipose tissue derived stem cells to regenerate of articular cartilage

arman alizadeh

Investigating the effect of Lactobacillus rhamnosus GG silver nanoparticles on the expression of bax and bcl-2 genes in colorectal cancer cells

Reza Khosravi farsani

The study of the curative effect of adipose tissue derived mesenchymal stem cells- conditioned medium on sperm DNA maturation and integrity and testicular meiosis in cyclophosphamide-treated mice

amin vesal yeganeh

Appropriation of DC-based vaccine loaded with cancer stem cell lysate for cancer treatment (from lab to human) : a systematic review

Sahar Jalilivand

Evaluation of HOTAIR and MALAT1 long non-coding RNAs' expression in HL60 cell line after treatment with normal BM-MSC derived exosomes

Fatemeh Hajibabaie

The Credibility of Genetically and Epigenetically Molecular Switches as Potent Biomarkers in the Prognosis, Diagnosis, and Therapeutic Monitoring of Colorectal malignancy.

Atousa Hamidy

Nanotechnology in stem cells imaging: An In-Vitro systematic review

Amirahossein Karimi

Evaluation of the effect of topical administration and intraperitoneal injection of cinnamon oil on neuropathic pain induced by chronic constriction injury in rats

پنل تله مدیسین شماره 2

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر اکرم ثناگو	سارا عابدی کوشکی	آرین غمخوار

Saber Najafian

The role of drones in missions outside medical centers

Yosef Abdolmaleki

بررسی اثرات استفاده از تله مدیسن بر خدمات ارائه شـده در دوران همه گیری ویروس کرونا: مطالعه مروری

Saeed Barari

بررسی موانع و چالش های تله مدیسن

Diba Nikkhah dashti zadeh

کاربرد تله‌مدیسین در پاندمی کووید-19: یک مرور سیستماتیک

Hediyeh Dasoomi

بررسی استفاده ازتله مدیسن(پزشکی از راه دور) در کنترل دیابت بارداری در مادران باردار- یک مطالعه مروری نظام مند

Ebrahim Sabbari fard

کاربرد تله نرسینگ در سالمندان مبتلا به آلزایمر: مرور سیستماتیک

Hediyeh Dasoomi

بررسی تاثیر استفاده واقعیت مجازی در درمان بیماری پارکینسون- یک مطالعه مروری نظام مند

Seyed mohammad Ali Hashemi Tame

Investigating the effect of telemedicine services on the rehabilitation of autism patients: a systematic review

Kosar Zeighami

Education through telemedicine and its impact on caregivers

پنل تغذیه شماره 1

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر هادی بازیار	حمیدرضا رزمی	محمد رضا امینی

Elahe Mokhtari

Circulating levels of vitamin D in relation to hypertension in children and adolescents: A systematic review and dose-response meta-analysis of epidemiologic studies with GRADE assessment

Mohammad ali Askari

The effect of magnesium supplementation on body composition: a systematic review and meta-analysis of clinical trials

Elahe Mokhtari

An unhealthy Plant-based diet increases the risk of hypertension but not Framingham risk score in adults

Shima Erfanian

The relationship between soy intake and risk of gastric cancer: a systematic review

Kimia Fathzade

Lycopene intake and risk of malignancy disorders: a systematic review and meta-analysis

Parnia Rafiei Chermahini

Quercetin intake and pancreatic cancer: a systematic review of prospective cohort studies

Mahdi Vajdi

The effect of chamomile supplementation on glycemic control in adults: A systematic review and meta-analysis

Niloofar Eshaghian

امتیاز شیوه زندگی سالم و چاقی عمومی و شکمی: یک مطالعه مقطعی

پنل تغذیه شماره 2

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر میثم عالی پور	شیما مرادی	امیر حسین دادوندی

Paria Saeedi

ارتباط بین دریافت ویتامین سی و سرطان دهان در بزرگسالان

Zahra Asadi

بررسی ارتباط میان مصرف میان وعده‌های مختلف و خطر ابتلا به اجزای سندرم متابولیک در بزرگسالان با وزن طبیعی در جنوب غرب ایران: یک مطالعه مقطعی

Fatemeh Aboutalebian

A meta-analysis on the association of sugar sweetened beverages intake with the risk of kidney cancer

MohammadReza Amini

The effects of purslane consumption on blood pressure, body weight, body mass index, and waist circumference: A systematic review and meta-analysis of randomized controlled

Hamidreza Razmi

The Effects of Grape Seed Extract Supplementation on Cardiovascular Risk Factors, Oxidative Stress and Quality of Life in Patients with Non-Alcoholic Fatty Liver Disease: A Randomised, Double-Blind, Placebo-Controlled Study

Sanaz Bohlouli Sardroudi

Is neck- to- height ratio associated with obesity- related indices in patients with NAFLD?

Samaneh Hajjarzadeh

Association of adherence to the MIND diet with chronic migraine in women

Taha Aghajani

"Insulin- mimetic" Features of Myo-inositol in the Treatment of NAFLD

Matin Sepehrinia

Evaluation of the Relationship Between Pro-Inflammatory Diet and Hypertension: A Cross-Sectional Study

THURSDAY 5 OCTOBER

پنج شنبه

۱۳ مهرماه

پنل تغذیه شماره 3

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر هادی بازیار	حمیدرضا رزمی	محمد رضا امینی

Amirhossein Abedini

The impact of synthetic and natural additives on biogenic amines production in food products: A systematic review

Niloufar Rasaei

The association between Cholesterol/Saturated Fat Index and quality of sleep, and Circadian rhythm among overweight and obese women: A cross-sectional study

Amirhossein Abedini

Assessment of cheese frauds, and relevant detection methods: A systematic review

Keyvan Khorasani

ارتباط مولفه‌های سبک زندگی سلامت محور با وضعیت اجتماعی – اقتصادی در مردان ساکن ندامتگاه شهرستان رشت

Ehsan Larki tork

The effect of guava (Psidium guajava Linn) fruit on the hemoglobin level in iron deficiency anemia of children and pregnant women: a systematic review

Parisa Jalali

The effects of Garcinia cambogia (hydroxycitric acid) on glycemic control and liver enzymes: A systematic review and meta-analysis of randomized controlled trials

Niloufar Rasaei

Interaction of genetics risk score (GRS) and fatty acids quality index on circadian rhythm and quality of life among overweight and obese women

Elyas Bastanifar

Genetically modified foods and cancer: A systematic review

پنل تغذیه شماره 4

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر میثم عالی پور	شیما مرادی	امیر حسین دادوندی

Mahsa Feizollahi

Evaluation of the impact of air pollution on the sex ratio: a systematic review

Fatemeh Sadeghi

Effects of PMS50 supplementation on mood swings associated with premenstrual syndrome: A randomized double-blind clinical trial

Sohrab Hajializadeh

The relationship between new indices of insulin resistance and the risk of metabolic syndrome in patients with type 2 diabetes mellitus: A cross-sectional study

Ali Hashemi

Effects of zinc intake on anxiety: A systematic Review

Mohsen Monjezi

سطوح سرمی ویتامین دی،کلسیم و روی در افراد مبتلاء به کرونا ویروس 19 در شهرستان شوشتر. مورد-شاهدی

Ali Jafari

Effectiveness of Low-Fructose Diet in Improving Anthropometric and Metabolic Factors: A Systematic Review and Meta-Analysis

Omid Reza Tamtaji

Evaluating the expression of selected long-coding RNAs in gastric cancer cells treated with coumarin: Possible mechanisms for anti-cancer activity

Vahid Arabi

Interaction between NF-KB1 polymorphism and Dietary antioxidant index and Dietary antioxidant quality score with Gensini score (GS) and Syntax score (SS) in patients undergoing coronary angiography

پنل مطالعات داده

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مژگان السادات سیف	ثریا معمر	یسری عزیز پور

Ali Hamednia

بررسی تاثیرات هوش مصنوعی در توالی یابی ژنی با رویکرد مقابله و تشخیص زودهنگام بیوتروریسم

Hamed AghapanahRoudsari

ارائه مدل یادگیری عمیق جهت طبقه‌بندی امواج مغزی بر اساس تبدیل PCAدر P300 speller

Yosef Abdolmaleki

بررسی اثر هوش مصنوعی در تشخیص و انجام اعمال ارتوپدی

Ali Haseli

تحولات، کاربرد و عملکرد هوش مصنوعی در تشخیص زود هنگام سرطان

Mohadeseh AnsariYegane

نقش کاربرد های هوش مصنوعی در درمان و مدیریت عوارض بیماری های مزمن

Samina Soltani

New drugs? No, thank you! We have enough of them: A Systematic Review of Deep Learning Approaches for Drug Repurposing in Alzheimer's Disease

mohadeseh sadat khorashadizadeh

بررسی تکنیک های هوش مصنوعی در مدیریت بیماری مزوتلیوما: یک مرور سیستماتیک

Amirreza Shalipour

The role of artificial intelligence (AI) in medical laboratory in next decade

Farzaneh Gouyandeh

the applications of Chatbots in medicine

پنل ماشین لرنینگ

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر سوسن چراغی	مصطفی پیوند	زهرا کریمی

Beheshteh Shirali

Investigating the use of artificial intelligence in the medical diagnostic laboratory during the coronavirus pandemic: A systematic review study

Laleh Rahmanian

Artificial Intelligence Applications in Molecular Imaging and Radiation Therapy: A Systematic Review

Laleh Ahadian

Machine Learning Approaches for Predicting Drug Response in Hypertension : A Systematic Review

Ali Mehravar

Assessment and diagnosis of multiple sclerosis using optical coherence tomography with the help of artificial intelligence and convolutional neural networks in Python

Maedeh Athari

Artificial Intelligence in Diagnosis of Aspergillosis

Arefe Hajimirza

Artificial intelligence methods in breast cancer diagnosis: a systematic review

Ali Sadeghi Varzaghan

Using Artificial intelligence for detection of polyps and adenomas in colonoscopy: An umbrella review

hamed rashidi

AI-Driven lung cancer diagnosis: an invaluable tool in modern medicine-A systematic review

hamidreza ghasemirad

The usage of machine learning for prediction and management of atrial fibrillation after cardiac surgeries, a systematic review

پنل اخلاق و سلامت معنوی

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر اکرم پرنده	ابوالفضل اکبری	ثریا معمر

Zahra Abdollahi

بررسی تاثیر فعالیت های فرهنگی ـ دانشجویی در ارتقا منش اخلاق پزشکی و مسئولیت پذیری دانشجویان دانشگاه علوم پزشکی اردبیل

Elahe Ali Bareshi

پردازش معنایی اسم و فعل فارسی در بزرگسالان دارای لکنت: شواهد رفتاری از تکلیف دوگانه قضاوت شباهت معنایی-تصمیم گیری تون

amirhossein seyed alikhani

Prediction of hope to the future based on social, emotional and spiritual intelligence in Karaj Olympiad students.

Fatemeh Moadeli

امید معنوی از دیدگاه ابن سینا در طب ایرانی

Ali Haji Mohammad Rahim

Determinant factors of care burden among caregivers of stroke patients

mobina khanmohammadi

Spiritual well-being and death anxiety: a cross-sectional study among patients with acute coronary syndrome

Mohammad Mozaffari

بررسی پیش بینی کننده های حس انسجام خانواده ادراک شده والدین کودکان مبتلا به سرطان تحت درمان در بیمارستان های دانشگاه علوم پزشکی شهید بهشتی شهر تهران در سال 1399

Mahdi Badiee Gavarti

Bullying in medical school; A cross-sectional study from Iran

پنل پرستاری شماره 1

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر میترا زندی	علی پروهان	امیر حسین گودرزیان

Mohammadreza Mojebi

ارزیابی توانایی تفکر انتقادی در دانشجویان پرستاری: یک مطالعه اکتشافی در ایران

Ali Jabraeelzadeh

ارزیابی نظرسنجی دانشجویان پرستاری در مورد نگارش برنامه های مراقبت پرستاری: یک مطالعه اکتشافی در ایران

Fatemeh Babaei Koli

ارتباط کفایت اجتماعی با تبعیت از درمان و عوامل موثر بر آن در بیماران قلبی عروقی ترخیص شده از مراکز آموزشی درمانی

Faeze Fakhri

بررسی عوامل مرتبط با مدت زمان بستری پس از جراحی‌های کولورکتال: یک مرور سیستماتیک

Razieh Khodayari

The Effect of Fast track Care on Patients with Orthopedic Fracture: A Systematic Review

Naeimeh Soltani

بررسی ارتباط سبک های یادگیری با نمره مهارت احیای قلبی ریوی پایه دانشجویان سال اول پرستاری

Ali Abbaszade cheragheali

The Effectiveness of Simulation-Based Training in Nursing Education: A Systematic Review and Meta-Analysis

Negar Hosseini

Comparing Anxiety and Depression of Nurses Working in COVID-19 Wards with Other Wards of Birjand Valiasr Hospital in 2022

پنل پرستاری شماره 2

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر اله رمضان زاده	هاجر صادقی	شایان علیجان پور

Amirreza Jamshidbeigi

360-Degree Investigation of the Clinical Evaluation Status of Undergraduate Nursing Students: A Cross-Sectional Study and a Meta-Analysis

Zohre Rajabpour

بررسی تأثیر آموزش خودمراقبتی به روش تدریس اعضای تیم بر کیفیت زندگی روحی و جسمی بیماران مبتلا به مولتیپل اسکلروزیس: یک مطالعه کارآزمایی بالینی تصادفی

Mohammad Hasanzade

میزان آمادگی گذر از دانشگاه به کار در دانشجویان پرستاری دانشگاه علوم پزشکی یزد

Mohammad Hossein Askari

بررسی ویژگی های روانسنجی ابزار کودک انگاری سالمند در پرستاران

Nafiseh Asgari

بررسی ویژگی های روانسنجی ابزار همکاری خانواده سالمندان بستری و پرستاران

Aida Ahmadpour

بررسی ارتباط حساسیت اخلاقی و تبعیض سنی نسبت به سالمندان از سوی پرستاران بخش های ویژه و تعیین عوامل مرتبط با آن

Reza GhorbaniNoghabi

تاثیر آموزش خودمراقبتی روانی، معنوی از طریق تله نرسینگ بر اضطراب مرگ سالمندان تحت پوشش مراکز سلامت جامعه شهر گناباد در دوران بیماری کووید- 19 در سال 1400

پنل پرستاری شماره 3

08:00 – 10:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر معصومه عبدالرحیمی	علیرضا سلمانی	منیژه پاکدل

Saeed Rastgoo Salami

Effects of Chronic Partial Sleep Deprivation and Sleep Pattern Disturbance on Male Reproductive Function: An Experimental Study in Rats

Fatemeh ArdestaniMohammadi

Effect of Cognitive behavioral therapy on Depression and Anxiety in the Traumatic Brain Injury patients: A systematic review of randomized controlled trials

Farid Sohrabi

بررسی ارتباط افسردگی بعد از سکته قلبی با تبعیت از رژیم درمانی در بیماران مراجعه کننده به بیمارستان حشمت رشت و حشمتیه سبزوار1400

Milad Heidarpour

Health and the gut microbiome: mechanistic insights

Narges Karimzadeh

Investigating the efficiency of novel anthropometric indices in predicting risk of metabolic syndrome in in patients with type 2 diabetes mellitus: A cross-sectional analytical study

Aliasghar Parhizkari

Comparison of the Effect of Pressure Control and Volume Control Ventilation on Endotracheal tube cuff pressure in Patients Undergoing General Anesthesia and Mechanical Ventilation: A Parallel Randomized Clinical Trial

Fateme Askarinezhad

Evaluation of Anxiety Symptoms and Sleep Quality among Patients Undergoing Coronary Angiography

Mohammadreza Asadi

درد شانه همی پلژیک پس از سکته مغزی (HSPو ارتباط آن با کیفیت خواب، خلق و خو و کیفیت زندگی در شهر قزوین

پنل کووید-شماره 1

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر شهرام محمودی	علی صفدری	سمیرا تردە

Zahra Akrami

Relationship between Thrombocytopenia Syndrome and Corona Vaccine in pregnant women: A systematic review

Mohammad Hamidifar

The Impact of COVID-19 on Mortality and Outcomes in Patients with Multiple Myeloma; Meta-Analysis

Marziye Hadian

شناسایی چالش های مدیریت اپیدمی کرونا ویروس جدید(کووید 19) در دانشگاه های علوم پزشکی کشور از دیدگاه ارایه دهندگان خدمت و مدیران حوزه ستادی

Mehran Sahi

Assess prevalence of signs and symptoms of end-stage breast cancer patients who followed up by home health care visit from MACSA institution during the COVID-19 pandemic(from 20nd march 2020 to 23nd September 2021) compared with before COVID-19 pandemic(from 22nd June 2018 to 22nd December 2019)

Miaad Mirzapour

مقایسه فشار مراقبتی بر مراقبان خانگی با داوطلبان سلامت در بیماران مبتلا به کووید-19

Mahsa Ghojavand

Does nudge lead to a change of path? A systematic review of COVID-19 preventive behaviors

Nima Goudarzi

Interferon lambda as a diagnostic biomarker and novel drug for COVID-19: a systematic review

Nilufar Shahmirzad

The Relationship between Health Literacy and General Health in Patients with COVID-19

پنل کووید-شماره 2

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مهران اسد علی ابادی	فاطمه کرمانی	امیر حسین حسن پور

Narjes Sadat Sadati

The Hidden Link Between ABO and Rh Blood Group System and COVID-19 Severity

Fatemeh Heidari

Association of statin therapy on clinical outcomes in COVID-19 patients: an updated systematic review and meta-analysis on all related evidences

Mahla Parhizgar

Investigating the Relationship Between Covid-19 Disease and the Occurrence of Diseases Related to Hypothyroidism: A Systematic Review Article

Mahsa Rouhani otaghsara

Covid-19 outbreak and Lessons learned by Babol pre-hospital emergency organization

Mohammad Pourfridoni

بررسی ارتباط کانون کنترل سلامت و میزان درک خطر افراد از ابتلا به بیماری کووید-19 در شهرستان سیرجان در سال 1399 : یک مطالعه مقطعی

Naser Ebrahimi

برآورد پرداخت مستقیم از جیب (OOP) بیماران برای هزینه‌های تشخیص و درمان بیماری کووید-19 در بیمارستان‌های مرجع درمان این بیماری در جنوب استان کرمان

friba layazali

بررسی آگاهی، نگرش، درک خطر و عملکرد سالمندان در مورد کووید-19

Soma Khezri

بکارگیری کمپین در پیشگیری از کووید-19 در داوطلبان سلامت

پنل مهندسی بهداشت محیط

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مسعود قربانی	حامد آقاپناه رودسری	اطهره نذری

Mobima Khezrian

روانشناسی محیط کار و تأثیر رنگ بر آن

Fateme DehghanBanadaki

Comparison of nitrogen and phosphorus removal efficiency from chicken slaughterhouse effluent by Chlorellavulgaris and Spirulina algae

Sama Hosseini

Investigation of electro-Fenton method for removal of antibiotic from polluted water

Maziyar Mollaea

مطالعه موردی پاسخ نظام سلامت به سیل فرودین سال 1398 خوزستان در زمینه بیماری‌های واگیردار

hossein zahiri khomartash

Pathogenic and health effects of methyl tertiary butyl ether (gasoline additive): a systematic review

Zahra Shademanpor

Investigating the Physicochemical and Microbial Quality of Drinking Water in Behbahan in 2023

ZakiehSadat Hosseini

Application of Bayesian Networks to Explore Predictive Factors of Ergonomic Behaviors among Iranian Female Assembly Line Workers, Based on Social Cognitive Theory

Mahdi Jalilvand

استفاده از تکنیک تریپود بتا با در نظر گرفتن رویکرد اقتصادی برای تحلیل حوادث صنعت خودروسازی

Ramin Rahmani

شیوع اختلالات اسکلتی عضلانی و ارتباط آن با توانایی انجام کار در کارکنان شاغل در اتاق عمل بیمارستان های دولتی همدان

پنل بهداشت عمومی شماره 1

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر حسین آذر پیرا	سودا فلاح	بهنام مرادی

Hamidreza Shaker

فاکتور های پیش بینی کننده مرتبط با پیشگیری از ابتلا به بروسلوزیز (تب مالت) در بین روستاییان بر اساس مدل پرسید-پروسید (PRECEDE-PROCEE)

Sadaf Farnam nia

The Prevalence of Depression among Medical students of Isfahan University of Medical science and its Relationship with Sleep Quality and Internet Addiction

Fatemeh Mombeni Kazemi

Dimensions of burnout in Burnout of Health house workers: a cross-sectional study

Fatemeh Heidari

Illicit Drug Use and the Associated Factors Among in general population of Ilam: a population based cross sectional studies

Sara Moslehi

فراوانی انواع خشونت خانگی در زنان معتادین مرد مراجعه کننده به مراکز ترک اعتیاد و ارتباط آن با عوامل دموگرافیک در اصفهان در سال 1401

Moloud Ghorbani

The association between serum metabolic parameters, and oxidative stress status with the risk of Gallstone Disease in women: a case-control study

Parva Khalilzad

Drug to drive; a systematic review investigating the effect of antiepileptics on safe driving of epileptic adults

پنل بهداشت عمومی شماره 2

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر یوسف مرادی	حامد سلیمانی	ربابه وحیدی کلور

SeyyedeLeila Sajjadi

Epidemiological pattern of death in motorcyclists: a retrospective cohort study

ZakiehSadat Hosseini

Empowering Middle-Aged Women: Exploring the Impact of Education on Promoting Behavior for Clinical Breast Examination

Sana Nabeghi

تاثیر آموزش به روش بازخورد محور در اصلاح سبک زندگی سـفیران سلامت

Parisa Hosseini Koukamari

تعیین کننده های غربالگری سرطان دهانه رحم: کاربردی از چهارچوب حوزه نظریه ای در روانسنجی ابزار

Kusar Aliabdy

Survey of knowledge and attitude of the elderly referring to health centers in Shoushtar city about a healthy lifestyle in 1401

ZakiehSadat Hosseini

The Relationship between Protection Motivation and Breast Self-Examination Behavior in Middle-Aged Women

Melika Khatami

The importance and level of responsiveness of the health system from the perspective of people with disabilities: A study from western Iran

Nazli Dadashzade khayyat

بررسی روند تغییرات پارامتر های مهم اقلیمی در استان اردبیل

پنل بیوتکنولوژی دارویی

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر ابولفضل اکبری	کیارش سالکی	شروین امیر خانلو

Mehrbanoo Hosseinirad

Synthesis and characterization of antibacterial bionanocomposites based on carboxy methyl cellulose/ polyhedral oligomeric silsesquioxane for delivery of sunitinib malate

Sara Ahadzadeh

Effect of environmental stress and cryoprotectant on survival enhancement of freeze-dried probiotic Lactobacillus plantarum

Negar Asadi

Evaluation of the Anti-Toxoplasmagondii Efficacy, and Cytotoxicity of Sea Cucumber Extract and Titanium Dioxide Nanoparticles

Negin Amani

Preparation of the aperpitant-loaded self –nanoemulsion for intestinal permeability studies

Twana Jamal Jalal

Preparation of composite drug delivery system based on deoxycholic acid micelle and carboxymethyl cellulose hydrogel for simultaneous controlled release of 5-FU and dexamethasone

Mona Zare

Preparation and Evaluation of Dry Powder Inhalation of Curcumin-Succinic Acid Eutectic Mixtures by Electrospraying Method

Sobhan Karbas Foroushan

Antibacterial properties of antipsychotic drugs: a systematic review

Mojtaba Ashrafi

Preparation of atorvastatin pellets and evaluation of their physicochemical properties

Fatemeh Mohammadhosseini

Preparation and Intestinal permeability studies on Valsartan Nano-emulsions and Solid Lipid Nanoparticles

پنل طراحی واکسن

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر شهرام خادم وطن	مریم مسکینی	روح الله احمدیان

Fatemeh Ahmadvash

Formulating Melatonin Gel for Wound Delivery: Preparation, Physicochemical Characterization, and Stability Profile

saba kermanpour

Novel Anti-inflammation Marine-Sourced Compounds; Results of an In-silico Study through Virtual Screening

hossein hasan pour

Virus-Like Particles (Vlps) from Synthesis to Targeted Drug Delivery, Vaccine Approaches, and Gene Therapy

mohammad mahdi shamloo

Using Dextran Stabilized Nanodroplets As A Novel Ultrasound Drug Delivery System for Cancer Therapy

Mostafa Mostajaboldaveh

An immunoinformatics approach for the design of a multi-epitope vaccine targeting super antigen TSST-1 of Staphylococcus aureus

Armin Ariaei

Modifying PER-CRY-CK1 complex with the aid of short engineering peptide to attenuate sleep disorder in Alzheimer's disease; In silico study

Reza Abedi

A conserved multi-epitope-based vaccine designed by targeting hemagglutinin protein of highly pathogenic avian H5 influenza viruses

Alireza Khoshrou

Bacterial vaccines for older adults: challenges and opportunities for immunization across the life-course; A systematic review

پنل طب سنتی شماره 2

10:30 – 12:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مهدی زروندی	محمد صادق عادل مهربان	محمد رضا عسکری

Ramin Ansari

Effects of Bunium persicum (Boiss.) B.Fedtsch. and Piper nigrum L. in the treatment of patients with mild to moderate Alzheimer's disease: a double-blinded, randomized, placebo clinical trial

Tayebeh Ghazaleh

The effect of topical cream of asafoetida aqueous extract on cutaneous leishmaniosis wound in BALB/c mice compared to Glucantim

Fatemeh Kaviani

Evaluation of the effect of Melissa Officinalis L (lemon balm) capsule on cognitive impairment in major depressed patients treated with ECT

Iraj Baratpour

Protective effect of Eucalyptol (Cineole 1,8) on pentylenetetrazole-induced seizure in mice threshold through moderation of nitric oxide pathway

Reza Moshfeghinia

Efficacy and safety of Ginger for pain management in Primary Dysmenorrhea: a systematic review and meta-analysis

Sepehr Zamani

بررسی ارتباط بین مزاج با انگیزش تحصیلی در دانشجویان علوم پزشکی شاهرود در سال تحصیلی 1401-1400

Melika Darzi

The effects of Nigella sativa on body composition: A systematic review and meta-analysis of controlled trials

Amirmahdi Rahmani

بررسی تأثیر رایحه‌درمانی با اسانس بابونه بر روی اضطراب و شاخص‌های همودینامیک بیماران مبتلا به سندرم کرونری حاد درسال 1400: یک کارآزمایی بالینی تصادفی

پنل پرستاری شماره 4

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر ناهید اسکندی	علی پروهان	امیر حسین گودرزیان

Amir Ghasemi

Prevalence of depression, anxiety and post-traumatic stress disorder in parents of children with congenital heart disease

Amir Ghasemi

prevalence of thirst in heart failure patients: a systematic review

sobhan hatamnia

The effect of spiritual care program on stress, anxiety and depression of cancer patients

Mohammad Farzanehfar

Evaluation Of The Relationship Between Body Image Satisfaction And Resilience Of Burn Patients Admitted To Hamadan Medical-Education Hospital In 2022

Fatemeh Fathi

The effect of virtual training on warfarin therapy on INR control: a quasi-experimental study

AmirEhsan Ahmadi Ashtiani

بررسی ارتباط فشار مراقبتی و کیفیت زندگی در مراقبین بیماران سالمند مبتلا به سکته مغزی در شهر قزوین

SeyedMahdi Sadati

ارتباط افسردگی و التهاب: بررسی شیوع افسردگی در سالمندان دارای آرتروز در کلینیک توانبخشی دانشگاه علوم پزشکی شیراز

Amin Ehsanian

Effective home care nursing interventions to improve the quality of life of patients with spinal cord injury: A systematic review

Zahra Khalaj

تاثیر افزودن دوزکم اپی نفرین به همراه بوپیواکایین داخل نخاعی وفنتانیل بر ثبات همودینامیک بیماران تحت عمل جراحی ارتوپدی اندام تحتانی

پنل مامایی

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر اله رمضان زاده	هاجر صادقی	شایان علیجان پور

Safoura Nikoei zade

Investigating predictors of preterm delivery

Mohammad Zahedi

Effect of intrauterine injection of platelet-rich plasma and the number of injections in increasing endometrial thickness and pregnancy rate in patients with thin endometrium; A clinical trial

Mahdi Asghari Almasian

Non-pharmacological methods for reducing labor pain: A systematic review and meta-analysis.

Sepideh Tousizadeh

Evaluation and comparison of arsenic and selenium levels in women with and without history of abortion in Shahrekord cohort study population: a population-based case-control study

Sara Abdoli

سیر بالینی و آسیب های ناشی از زخم اپی زیاتومی در زنان نخست زای مراجعه کننده به بیمارستان های شهرستان ملایر در سال 1400: یک مطالعه کوهورت آینده نگر

پنل کووید-19 شماره 3

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر سید علی میرحسینی	عرفان کاظمی	آرمان محمدی

Ali Arianezhad

Changes of thyroid hormones in covid 19 patients

Negar Habibi behrooz

Effects of the Covid-19 pandemic on the prevalence of developmental disorders in preschool children: a study during the crisis

Mohammad Farjad Mehr

Relationship Between COVID-19 and sodium balance

Maryam Dehshiri

Comparison of the severity of covid-19 in reproductive age and postmenopausal women: A Cross-Sectional Study

Mostafa Peyvand

تبیین تجارب پزشکان روستایی درمورد شیوه های افزایش پذیرش واکسن در جمعیت تحت پوشش، کم برخوردارترین استان کشور (یک مطالعه کیفی)

Setayesh Ebrahimian

بررسی ارتباط بین عوارض جانبی واکسن کووید 19 و سابقه مصرف مکمل های غذایی : یک مطالعه گذشته نگر

Narjes Shabani

بررسی وضعیت سبک زندگی ارتقاءدهنده سلامت و ارتباط آن با شادکامی در دانشجویان پرستاری و مامایی دانشگاه علوم پزشکی شهرکرد در زمان بحران بیماری کرونا ویروس (کووید-19) در سال 1400

Nasir Arefinia

Association between expression of TLR 3, 7, and 8 genes and severity of COVID-19

پنل کووید-19 شماره 4

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر بهمن جلالی	کیمیا جزی	حمیدرضا شاکر

Faraz Oustam

ارتباط بین اضطراب ابتلا به کووید-19 با احساس تنهایی با نقش تعدیل‌کننده گرایش مذهبی در میان سالمندان ایرانی

Mina Mollaei

تعهد حرفه¬ای پرستاران در بحران کووید-19: یک مطالعه¬ی کیفی

Darya Ipchian

Assessment of frequency and prognostic value of acid-base and electrolyte imbalances in ICU-admitted severe COVID-19 patients

Ali Abasi

بررسی فراوانی بیماری کووید-19 در بیماران با ایست قلبی-تنفسی مراجعه کننده به اورژانس بیمارستان های سطح شهر سنندج در سال 1399

Ali Abasi

Evaluation of troponin I level and its relationship with mortality in patients with covid19 referred to emergency department of Tohid Hospital in Sanandaj in the second 6 months of 1400

Kimya Khoramipoor

Virtual education status from the perspective of students of Kurdistan University of Medical Sciences during the Covid-19 pandemic

Aida Ahmadpour

اثربخشی داروی لیناگلیپتین بر پیامدهای ناشی از ابتلا به کووید-19 در بیماران مبتلا به دیابت

Marjan Kordi

The effect of education and telephone follow-up on the caregiver burden of caregivers of patients with COVID-19, a Quasi-Experimental study

پنل کووید-19 شماره 5

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مهران اسد علی ابادی	علی منصور سمائی	رضوان حسین زاده

Zahra Keyvanlo

برآورد هزینه بهروری ازدست رفته به علت غیبت از کار در بیماران کووید 19 و عوامل موثر بر آن در شهرستان سبزوار طی سالهای 1398-1400

Ali Safdari

The Initial Psychological Experiences of Health Care Providers on the Front Line of the Fight against COVID-19: A Qualitative Study

Abolfazl lackzaie

Assessing the effect of Hydroxychloroquine and Azithromycin on COVID_19 Morbidity with and without Arrhythmia

amirmohammad tohidinia

Level of neuropeptide Y in the serum of patients with covid-19 and its relationship with Tumor Necrosis Factor of Alpha before and after steroids therapy

emad dadgar

Body Mass Index Association with COVID-19 Outcome in a Pediatric Tertiary Referral Hospital of Iran

mohammad mahdi taheri

Lung cavity lesions, a rare complication with important consequences in patients with covid-19

Elham ZarghamiSoltanAhmadi

Is a high dose of vitamin D improve COVID-19 patients' outcomes: a systematic review

Amirmahdi Asgarifar

Assess prevalence of signs and symptoms of end-stage stomach and esophageal cancer patients who followed up by home health care visit from MACSA institution during the COVID-19 pandemic(from 20nd march 2020 to 23nd September 2021) compared with before COVID-19 pandemic(from 22nd June 2018 to 22nd De

پنل بیماری های داخلی شماره 1

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مهران اسد علی ابادی	علی منصور سمائی	فاطمه جعفری

Mitra Abdollahian

Investigation of 5-year survival of patients with breast cancer and its related factors

Abolfazl Parsi Moud

Association between Neutrophil to Lymphocyte Ratio (NLR), Platelet to Lymphocyte Ratio (PLR) and Mean Platelet Volume (MPV) with Rheumatoid Arthritis activity: an alternative diagnostic method

Asra Moradkhani

Is there an association between Overweight/Obesity and Ovarian Cancer? An Updated Systematic Review and Meta-Analysis

Amir Hossein Rostami

Microbiom biomarkers of colorectal cancer: a systematic review

Ali Reyhani

Identification of Thalassemia δβ° and Hb D in premarital screening: Cases report

SayedReza Mirlohi

Joint regeneration in rheumatoid arthritis through immune-like hormones: a systematic study of myostatin

Sara Jalalian

The Role of miRNAs in the Treatment Efficacy of Tamoxifen in Breast Cancer Patients: A Systematic Review

Mohammad Tobeiha

Comparing the effect of Osteofix Barij cream® and Diclophenac ointment in patiants with knee osteoarthritis

Setayesh Fayyazi

وضعیت متیلاسیون DNAنابجا و سطح بیان mRNAاز ژن SMG1در لوسمی میلوئید مزمن: مطالعه مورد-شاهدی

پنل بیماری های قلبی عروقی

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر فریبا حسین زادگان	کیمیا جزی	عطیه قربان پور

Alireza Mohebbi Zadeh

Diagnostic utility of neutrophil extracellular trap, syndecan-1 and high mobility group box protein-1 for disseminated intravascular coagulation: A systemic review and meta-analysis

Maryam Sharifi Najafabadi

The Effect of Ketogenic Diet on Lipid Profile in Cardiovascular Disease: A Systematic Review of Randomized Clinical Trials

Amirhossein Ebrahimi

Statin intensity and adherence are independent determinants of major adverse cardiovascular events; a polypill study on post-STEMI patients

Sina Parsa

The effect of Endometriosis on the risk of Cardiovascular Diseases: A Systematic Review and Meta-analysis

Mahour Farzan

Multiple sclerosis and the incidence of venous thromboembolism: A systematic review and meta-analysis

Faezeh GolvardiYazdi

Prognostic role of neutrophil-to-lymphocyte ratio in cardiovascular disease: A Systematic Review

Ramin Ansari

Association between serum vitamin D and troponin I levels, type of stent and type of stenotic vessels in patients undergoing elective percutaneous coronary intervention (PCI)

پنل بیماری های داخلی شماره 2

13:30 – 15:30

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر معصومه عبدالرحیمی	پریسا ملکی دانا	امیر علی مودی قالیباف

Kimia Afshar

Bevacizumab as adjuvant therapy in treatment of keloid: A randomized clinical trial

Sima Choupan nejad

Comparative study of colonoscopy findings in asymptomatic individuals with positive and negative FIT

Amir Hossein Jalilvand

Risk of dementia in patients with Atopic Dermatitis: A Systematic Review and Meta-Analysis

Atabak Sedigh namin

Reporting a new potentially harmful variant in the DNAH5 gene in patients with Kartagener's syndrome in Ardabil province: Case report

Arvin Memari

Alcohol, smoking and IBD; friends or foes? The effect of alcohol consumption and smoking on IBD: a systematic review

Fatemeh Saeedi

مقایسه اثرات جراحی های چاقی بر روی قند خون ناشتا و پروفایل لیپیدی در بیماران مبتلا به پیش دیابت و دیابت نوع دو

Elaheh Karimzadeh soureshjani

Association Between Helicobacter Pylori Infection and Inflammatory Bowel Disease: A systematic review

Arian Ghannadi Karimi

The Effect of Allopurinol and Uric Acid Reduction on GFR in Patients with Chronic Renal Failure

Alireza Abbaszade

Comparison of the frequency of atopic dermatitis in patients with and without irritable bowel syndrome referred to the gastrointestinal clinic in Mashhad in 2020-2021

Mahdieh Eftekhari

بررسی میزان فعالیت جسمانی بیماران مبتلا به دیابت نوع 2 مراجعه کننده به مراکز منتخب سطوح شهر قزوین بر حسب مدل مراحل تغییر در سال 1401

پنل نورولوژی و روان

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر مصطفی الماسی	امیر علی مودی قالیباف	احسان دادگستر

Hanieh Goudarzi

Body mass index is associated with an increased risk of cataract in adults: an updated meta-analysis

Fateme Habibi

Melatonin as a potential therapeutic agent for tinnitus

Mahsa Pourmahdi-Boroujeni

Peripapillary and Macular Vascular Density in Neuromyelitis Optica Spectrum Disorders: A Case-control Study

Erfan Shahabinejad

The outcomes of stereotactic radiosurgery for recurrent vestibular schwannoma after failed microsurgery, systematic review and meta-analysis

Ronak Kohzadi

Ameliorative effect of Sildenafil Citrate on the sperm quality during cryopreservation in the asthenozoospermicc men

Aida Tavallaeirad

The association between inflammation and depression in the MASHAD Cohort study

Asal Ebrahimian

MULTIPLE SCLEROSIS PATIENTS HAS LOWER SLEEP QUALITY; A SYSTEMATIC REVIEW AND META-ANALYSIS

Abolfazl Tashakori

A novel method nonsurgical therapy for Shunted Hydrocephalus: A Case Report

Mohammad Mahdi Mahmodjanloo

The Relationship between Sleep Quality and Headache Intensity in Migraine Patients Referred to affiliated centers of Babol University of Medical Science Centers in 2020

Sana Pournazari

Effect of Intranasal Oxytocin on Core Symptoms of Autism Spectrum Disorder: A Systematic Review

پنل بیماری های زنان

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر افسانه بختیاری	محدثه صدری	ابولفضل اکبری

Seyyed Saeed Shams

Investigating the relationship between serum selenium levels and pregnancy outcomes and bacteriuria in pregnant women

MOHAMMA REZA RAZAVI

Is there a relationship between cerebral palsy and tobacco during pregnancy? A systematic review of pediatric health

Abolfazl Parsi Moud

Comparison of the effect of intrathecal fentanyl in different doses on the quality and quantity of analgesia in the cesarean section of multiparous mothers

Majid Ghajari

عوامل مرتبط با افسردگی بعد از زایمان در مادران مراجعه کننده به بیمارستان های دکتر شریعتی و دکتر غرضی اصفهان در سال های 1400 و 1401

Fateme Sharafeddin

مقایسه اثربخشی درمان جراحی و محافظه کارانه در بیماری ماستیت گرانولوماتوز در زنان سنین باروری مراجعه کننده مراکز منتخب شهر اصفهان از 1398 تا 1400

Sajad Zare Garizi

مقایسه پیامدهای بارداری و نوزادی در زنان نابارور بالای 35 سال کاندید تزریق داخل سیتوپلاسمی اسپرم و لقاح خارج رحمی در پژوهشکده علوم تولید مثل یزد از سال 1401-1398

پنل اطفال

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر اکرم پرنده	ذبیح الله محقق	مهران صفری

Erfan Zare

A novel EDA variant causing X-linked anhypohidrotic ectodermal dysplasia:Case report

Mojtaba Cheraghi

بررسی تاثیر مکمل ویتامین Eبر سطح بیلی روبین در نوزادان مبتلا به هایپربیلیروبینمی : یک مطالعه کارآزمایی بالینی تصادفی سازی شده دو سوکور

Fereshte Rastegarnasab

Successful treatment of fungal ball-associated tinea capitis in a healthy infant: An unusual presentation

Amirhossein Babaei

The relationship between obesity and otitis media with effusion in children

Gisou Erabi

Gluten-Free Diet, the impact on Autism severity and Gastrointestinal Symptoms in Children

Hakime Ghadiri hakim

Investigation of frequency of pediatric drug hypersensivity admitted in Akbar and Ghaem hospital in 10 years

Fatemeh Sodeifian

Efficacy and Safety of Vagus Nerve Stimulation for Children with Drug-Resistant Epilepsy

Pegah Veradi Esfahani

The effect of a thyme-ivy fluid extract combination on the severity of cough in children

پنل مطالعات نظام سلامت شماره 1

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر شهرام محمودی	نرجس صدیقی	مهدی رفیعی

Aileen Saranjam

Aging Modulates Oxidative Stress and Apoptosis by Alteration in Sirt1/Nrf2 Signaling Pathway in the Heart of Aged Male Rats; Rescue Effect of Prazosin

Abbas Naseri

Studying the statistics of smoking among people over 15 years of age and the factors affecting it in Ilam city in 2021-2022

Mohammad Arabsorkh

بررسی تأثیر آموزش مجازی راهکارهای مقابله با استرس شغلی بر میزان استرس شغلی کارکنان اتاق عمل‌های مراکز آموزشی درمانی دانشگاه علوم پزشکی ایران

Maryam Boozari

Comparison of Duloxetine and Nortriptyline effects in the treatment of patient with Irritable Bowel Syndrome

Arezoo Jabbari

راهبردهای سیاستی کنترل مدیریت تعارض منافع ناشی از دوشغلگی پزشکان: یک مطالعه مروری

Ahmad Bavali Gazik

The effect of implementing Fanny and George Shaftel's role-playing model on the skill and knowledge of patient education of undergraduate nursing students

Hamid Yazdaninejad

Investigating of the effect of reporting the stages of surgery on self-confidence and clinical self-efficacy of anesthesia students

Zohreh Javanmard

Educational needs assessment of the staff of the health information management department of teaching hospitals of Ferdows city

پنل نظام سلامت شماره 2

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر حمزه علی پور	سوگند عباسی عزیزی	حسین حسینی فرد

Zahra Jalilzadeh

Investigation of knowledge and environmental protection performance situation for khoy city guidance school students in 2022 year

Seyed Aref Sajjadi

Review and Evaluation of the Status of Elderly Health in Iran based on the World Health Organization Framework

Ali Arianezhad

Determining the benefits and satisfaction of an evidence-based morning report from students' perspectives

Maedeh Khatami

Evaluation of the educational environment of Sanandaj dental faculty from the point of view of Sanandaj dental students based on the DSLES model

ahdie bahri

بررسی ارتباط بین خود کارآمدی و خود مراقبتی در زنان مبتلا به دیابت بارداری مراجعه کننده به مرکز دیابت شهر یزد

Abolfazl Akbari

Scientific writing workshop for medical sciences students; a competition based learning program

Maziar Nikouei

شیوع نیاز برآورده نشده برای خدمات سلامت روان در بین افراد دارای معلولیت و نابرابری های اقتصادی اجتماعی مرتبط با آن

Ramin Mansouri

بررسی فراوانی انواع مختلف سبک های یادگیری در دانشجویان رشته ی پزشکی دانشگاه علوم پزشکی همدان در سال 1400-1401

پنل مطالعات نظام سلامت شماره 3

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر بهمن جلالی	سعید سمائی نسب	محمد پور فریدونی

Sara Alipour

بررسی فراوانی اهمالکاری تحصیلی و عوامل مرتبط با آن در دانشجویان پزشکی دانشگاه علوم پزشکی همدان در سال 1400

Sayyed_Morteza Hossein_Shokouh

Identifying and prioritizing the strategies for costs containment and revenue increase in Iranian military hospitals

Zahra Mehrbakhsh

Evaluation of prognostic factors affecting the long-term survival of patients with leukemia using a mixture Cure model

Melika MEMARI

بررسی سطح رضایتمندی دانشجویان دانشکده علوم پزشکی ساوه از برنامهها و فرآیندهای آموزشی در سال تحصیلی 1401 – 1402

Zeinab Assareh

Study on Health Literacy Level of Adults Referring to Hamadan Health Care Centers in COVID19 Epidemy (2020)

Samira Mohammadi

The relationship between self-concept and resilience in dialysis patients of Ali Ibn Abi Talib Hospital, Zahedan, 1399-1400

Ali Sheybani Zadeh

آینده‌پژوهی مدیریت مراقبت‌های اولیه سلامت در ایران با رویکرد سناریونویسی

Khabat Khodamoradi

Epidemiological study of aluminum phosphide poisoning mortality in Tohid Sanandaj Hospital from 2010 to 2018

پنل فناوری

16:00 – 18:00

داور هیئت علمی و مدیر پنل	داور دانشجو	داور دانشجو
دکتر ناصر اقدمی	میلاد بهاری	المیرا علایی

mostafa eslami

تشخیص سریع و دقیق پوکی استخوان با استفاده از عکسبرداری های رادیولوژی در پلتفرم هوش مصنوعی

Elham baqeri

نرم افزار مفسر نوار قلب

Mostafa Darvishiyan Kakhki

Biological indoor air purifier

alireza anarjani

مادیار : دستگاه هوشمند توانبخشی و تقویت عضلات کف لگن

yousef terme

پودر مکمل جفت و بند ناف

soheil nik

Skin Disease Diagnosis Platform Using Artificial Intelligence

atiye shah hosseini

انگشتانه‌ی استریل محافظ در برابر نیدل استیک

خلاصه مقالات

سخنرانی ها

G-1013

The effectiveness of group spiritual care on the hope and anxiety of leukemia patients

Mohammad Torabi [1], Vahid Yousofvand [2] , Reza Mohammadi [2] , Fatemeh Karbin [2]

[1] Chronic Diseases (Home Care) Research Centre, Malayer School of Nursing, Hamadan University of Medical Sciences, Hamadan, Iran

[2] Student Research Committee, Hamadan University of Medical Sciences, Hamadan, Iran

Introduction: Leukemia is a type of blood cancer that occurs when the differentiation of hematopoietic stem cells is disrupted. Leukemia patients often face a mental crisis due to diagnosis, long-term follow-up, chemotherapy, radiation therapy and side effects, which can result in despair and anxiety. Studies have shown that spiritual care can create hope and reduce anxiety in chronic patients. Spiritual care may help a person believe in their ability to cope with stressful situations in chronic diseases, including leukemia, by creating a sense of connection with a higher power. Therefore, this study examined the effectiveness of a group spiritual care program on the hope and anxiety of leukemia patients.

Method & material: This randomized controlled trial involved 94 leukemia patients hospitalized in two oncology departments of Shahid Beheshti Hospital in Hamadan, from November 2022 to April 2023. The participants were divided into experimental (N=46) and control (N=48) groups based on the study inclusion criteria. The participants signed the written informed consent form, and completed the demographic information form and the Beck's anxiety and Snyder's hope questionnaires. The spiritual care program was delivered in six sessions (one session of 45-60 minutes per week), covering spiritual needs assessment, religious care, spiritual care, spiritual-psychological care, supportive-spiritual care and evaluation. Then, the participants completed the Beck's anxiety and Snyder's hope questionnaires immediately, one and two months after the intervention. The data were analyzed at a significance level of 0.05 using SPSS version 24 software.

Result: Initially, there was no significant difference between the groups in the mean scores of hope (P=0.313) and anxiety (P=0.141). But immediately, one and two months after the intervention, a significant difference was observed between the groups in the mean scores of hope and anxiety. (P 0.001) Also, in the experimental group, from the beginning to two months after the intervention, there was a significant increase and decrease in the average scores of anxiety and hope. (P 0.001), although in the control group, from the beginning of the study to two One month after the intervention, a significant decrease and increase in the mean scores of hope and anxiety were observed (P 0.001).

Conclusion: Consequently, nurses should assess and address the spiritual needs and preferences of leukemia patients and provide them with appropriate spiritual care interventions

G-1014

Lacto-vegetarian Dietary Score (LVDS) reduced the risk of Post-Menopausal Osteoporosis in a sample of Iranian Post-Menopausal women: a case-control study

Shakila Ansari [1] , Behnood Abbasi [2], Parvane Saneei [3], Zahra Heidari [4], Sahar Saraf-Bank [3]

[1] Student Research Committee, Isfahan University of Medical Sciences, Isfahan, Iran

[2] Department of Nutrition, Science and Research Brand, Islamic Azad University, Tehran, Iran

[3] Nutrition and Food Security Research Center, Department of Community Nutrition, School of Nutrition and Food Science, Isfahan University of Medical Sciences, Isfahan, Iran.

[4] Department of Epidemiology and Biostatistics, Isfahan University of Medical Sciences, Isfahan, Iran

Introduction: Post-menopausal osteoporosis (PMO), caused by estrogen deficiency, is the most common occurring type of osteoporosis (OP). Reduced estrogen production, both directly through estrogen receptors in bone and indirectly through decreased intestinal calcium resorption, causes a 5% reduction in bone mass density (BMD) in the early years of menopause and continues at a rate of 1-1.5% per year in following years. Diet can affect PMO, vegetarian lifestyles have grown in popularity in recent years. Alkaline nature of Lacto-vegetarian, and consisting of a higher intake of fruits, vegetables, nuts, and legumes which provide extra potassium, magnesium, antioxidants, vitamin B12, vitamin C, and vitamin K thought to increase BMD and decreases bone resorption. Therefore, we created the Lacto-vegetarian dietary score (LVDS) for the first time to determine the similarity of individual's dietary pattern to Lacto-vegetarian dietary pattern (LVDP) and assess its association with PMO.

Method & material: postmenopausal women with PMO and 220 controls (Aged 45 -76 years) were randomly selected. The diagnosis of OP was based on the T-score of bone mass; BMD ≤ 2.5 indicated OP. Usual dietary intakes were assessed by a validated 147-item food frequency questionnaire (FFQ). To design LVDS, 12 food groups were selected based on the nature of the LVDP. Positive points were given to vegetables, fruits, grains (whole and refined), legumes, soy protein, nuts and seeds, vegetable oils, and dairy. Reverse scores were awarded to fish and sea foods, red, white and processed meats, egg and animal oils. Total score could range from 12 (lowest similarity to LVDP) to 60 (highest similarity to LVDP). All analyses were performed using SPSS Statistics 26.0 software. To determine the relation between the PMO and LVDS and its 12 food items, binary logistic regression was used

Result: Those in the top tertile of the LVDS had a lower chance of PMO compared to those in the bottom tertile (OR: 0.11; 95% CI 0.06-0.22). An inverse relation was obtained between vegetables (OR:0.14; 95%CI: 0.07-0.26), fruits (OR:0.11; 95%CI: 0.06-0.22), legumes (OR:0.15; 95%CI: 0.08-0.28), nuts (OR:0.13; 95%CI: 0.06-0.25), dairy (OR:0.42; 95%CI: 0.23-0.79), soy protein (OR:0.48; 95%CI: 0.26-0.88), and eggs (OR:0.09; 95%CI: 0.04-0.18) consumption and PMO. Higher consumption of vegetable and animal oils significantly increased the risk of PMO (OR:10.97; 95%CI: 5.49-21.88 vs. OR:4.14; 95%CI: 2.23-7.70, respectively).

Conclusion: A dietary pattern similar to LVDP and concentrated on greater consumption of legumes, nuts, dairy, fruits, vegetables and soy protein can be suggested as a protective way against PMO.

G-1025

Design and evaluation of a prophylactic HPV L2 RG1-based subunit vaccine containing "TLR4/5 agonists/tetanus toxoid as built-in adjuvants: An immuneinformatic and in silico structural study

1Maryam Mashhadi Abolghasem Shirazi1, Arash Arashkia2*, Setareh Haghighat1, Farzin Roohvand2, Seyed Mehdi Sadat3
Department of Microbiology, Faculty of Advanced Sciences and Technology, Tehran Medical Sciences, Islamic Azad University, Tehran, Iran.
2 Department of Molecular Virology, Pasteur Institute of Iran, Tehran, Iran.
3 Department of Hepatitis, AIDS and Blood borne Diseases, Pasteur Institute of Iran, Tehran, Iran.

Introduction: Infection with certain types of Human Papilloma virus (HPV) is the main cause of cervical carcinomas in women worldwide. Despite the availability of three approved preventive vaccines based on HPV major capsid (L1) protein, several limitations such as the type-specificity (limited cross-protections among HPV types), high cost and technical complexity of the production process, restrict their production/utilization in specially developing countries. HPV minor capsid (L2) protein contains several conserved pan-type linear epitopes such as "RG1 (aa17-36)" capable of eliciting cross-protective neutralizing antibodies (nAbs) for a simple/low cost subunit vaccine formulation, if a proper adjuvant combination could enhance the immunogenicity. We studied the critical role of a designed built-in adjuvant harboring TLR 4/5 agonists + tetanus toxoid (TT-P2) on anti-RG1 immune responses by immunoinformatic and in silico structural tools.

Method & material: The designed immunogen incorporated dual of 3x tandem repeats of the RG1 epitope + TLR5/4 agonists + tetanus toxoid epitopes in tandem. Various bioinformatics tools were employed for characterization of the physicochemical, immunogenic and safety properties as well as prediction/refinement/validation of the 2D and 3D structures of the immunogen. Finally, the interaction of the incorporated TLR5/4 built-in-adjuvants and their corresponding receptors were assessed by protein-protein flexible molecular docking tools.

Result: In silico analyses indicated that the designed immunogen is stable, polar, hydrophilic with a positive charge, non-allergen, non-toxic and soluble when expressed in E. coli. Results of the MHC-I and II epitope analyses showed high affinity binding to HLA-A and HLA-B types and potential induction of anti-RG1 humoral and cellular immune responses by the designed immunogen. Secondary structure analyses showed that the design immunogen consisted of alpha-helix (35.10%), extended strand (16.63%), beta-turn (7.62%), and random coil (40.65%). The result of the model validation showed high quality of the refined construct. Additionally, the Ramachandran plot analysis showed that 86.8% of the residues were in the most favored region, 7.9% in the allowed region, and 5.4% were displayed in outlier regions, indicating the quality of the predicted structure. Finally, results of the molecular docking predicted that the TLR4 and TLR5 agonists in the designed immunogen could efficiently bind to their corresponding receptors to induce the immune signal cascades.

Conclusion: Our immunoinformatic and in silico structural analyses indicated the possibility of achieving an inexpensive pan-genomic and cross-reactive HPV vaccine for the induction of strong anti-HPV L2 RG1 immune responses based on inclusion of "TLR4/5 agonists + tetanus toxoid" as built-in adjuvants.

G-1027

Identification of Trichomonas vaginalis species in Northern Iran using PCR–Sequencing

Nasim Khanahmadi,Dr.Peyman Heydarin,Nasim Saber,Ali Dehghaninejad,Hootan Shahdoost
Student Research Committee&Cellular and Molecular Research Center
Qazvin University of Medical Sciences, Qazvin, Iran

Introduction: Trichomonas vaginalis is a single-celled, flagellated, and anaerobic protozoan that causes trichomoniasis. This disease is one of the most common sexually transmitted infections worldwide, with an estimated 180 million people affected annually according to WHO reports. The infection has also been reported in Iran. Definitive diagnosis of this disease is performed using laboratory tests such as wet mount, different staining methods, cytologic Pap smear, culture, serologic tests, and more recently molecular methods. Numerous studies have been conducted on the identification of Trichomonas genotypes in different regions of the world, and based on the actin gene, six genotypes (E, G, H, I, M, N) have been reported for T. vaginalis. The aim of this study was to investigate the prevalence of T. vaginalis and determine its genotype using vaginal swabs from individuals referred to health centers in Rudbar (Gilan province).
Method & material: In this study, vaginal samples were obtained from 450 married women referred to health centers in Rudbar from September 2018 to December 2019, and demographic information was collected through a questionnaire. The samples were examined using wet mount and culture medium. The positive samples for the actin gene were amplified by PCR. Finally, the PCR product was sequenced and the genotype of the parasite was determined.
Result: Out of 450 samples, 3 (0.7%) tested positive for T. vaginalis. After sequencing, the genotype of these parasites was identified as H (66.7%) and E (33.3%) in Rudbar. This study showed a decrease in the prevalence of this single-celled organism.
Conclusion: To determine the parasite genotype in Gilan province, it is necessary to perform this study in all cities of the province and determine the parasite genotype.

G-1044

The effects of Tacrolimus on pregnancy outcome in women with recurrent implantation failure (RIF) associated with immunologic factors: clinical trial study

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2 Department of Immunology, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

Introduction: Miscarriage is one of the most common pregnancy problems and refers to pregnancy loss before the 20th week of pregnancy. Considering the importance of Th1 and Th2 cells in the success or failure of pregnancy and the relationship between the frequency and function of these cells with pregnancy problems including implantation failure and the role of immunosuppressive factors in suppressing immune responses, we decided to consider the effect of tacrolimus as An immunosuppressant in regulating the balance of Th1 and Th2 cells, which is necessary for a successful pregnancy, and finally to investigate its effect on the outcome of pregnancy and the birth of a live baby in people with RIF.

Method & material: This prospective, randomized, double-blind, placebo-controlled trial was conducted at a reproductive medicine center. 100 women diagnosed with RIF were randomly allocated in 2 groups. Determining the amount of IL-4 and IFN cytokines in tacrolimus receiving and non-receiving groups using ELISA. The mRNA levels of T-bet and GATA3 and cytokines IL-4, IL-10, IFNγ, TNFα using q-RT PCR.

Result: mRNA and protein expression of endometrial markers in endometrial samples. Tacrolimus group showed a significantly higher clinical pregnancy rate ($P< 0.01$), live birth rate ($P< 0.01$), and a lower miscarriage rate ($P< 0.01$) compared to the control group.

Conclusion: Tacrolimus administration in women with RIF associated with immunologic factors significantly improves pregnancy outcomes. However, further research is warranted to elucidate the underlying mechanisms and optimize the dosage and duration of Tacrolimus treatment. Nonetheless, these findings provide important insights into the potential therapeutic role of Tacrolimus in improving reproductive outcomes in this specific patient population.

G-1046

The Prevalence of Renal Failure and its relationship with Physical Activity in the Dehgolan Prospective Cohort Study

Maziar Nikouei [1] , Mobin Azami [2], Maryam Afrai [3], Asra Moradkhani [1], Yousef Moradi [4] , Azad Shokri [4]

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[2] Student Research Committee, Kurdistan University of Medical Sciences, Sanandaj, Iran.

[3] .Department of Epidemiology and Biostatistics, School of Medicine, Kurdistan University of Medical Sciences, Sanandaj,Iran .

[4] Social Determinants of Health Research Center, Research institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran

Introduction: The aim was to perform a cross-sectional study with a large sample size based on the Dehgolan Prospective Cohort Study (DehPCS), first to calculate the prevalence of renal failure in the population and then evaluate the effect of physical activity and mobility on the prevention and control of the disease and its related factors.

Method & material: Data were obtained from 3996 participants aged 35–70 years in the enrolment phase of DehPCS. The level of physical activity was calculated based on the total metabolic equivalent task (MET) on sleep, work, and rest time on a weekdays. Participants were asked to report type, duration, and intensity of mean 24 hours physical activity (PA) during past 7 days. Estimated glomerular filtration rate (eGFR) was calculated by modification of diet by renal disease (MDRD) equation. Stata version 17 (StataCorp, College Station, TX, and USA) was used for the data analysis.

Result: The highest prevalence of eGFR in the 35-45 (82.74 %, CI: 80.88 - 84.45), 46-60 (78.21 %, CI: 76.16 - 80.12), and 60(49.78 %, CI: 45.30 - 54.28) groups were in the S2 range. The result for unstandardized MET (β: 0.24, CI: 0.19 - 0.28) was positive but it decreased when it was standardized (β: 0.18, CI: 0.14 - 0.22); and in moderate(β: 0.84, CI: 0.09 - 1.59) and vigorous(β: 5.95, CI: 4.87 - 7.03) subgroups decreased in standardized (β: 0.77, CI: 0.04 - 1.51 - β: 4.46 , CI: 3.38 - 5.53) showing the more physical activity increases the amount of glomerular filtration.

Conclusion: The prevalence of chronic kidney disease was reported in western Iran population to be high. Meanwhile, physical activity based on the eGFR index was significantly related to kidney function; Thus, it is necessary to use physical activity as an active intervention to reduce kidney complications in future programs related to health.

G-1080

Effects of Saffron on the Treatment of Peptic Ulcer in Rats

Ali Ramazani[1]℗©, Mostafa Eslami[1], Mohammad Amin Dizgani[1]

[1] Student Research Committee, Baqiyatallah University of Medical Sciences, Tehran, Iran

Introduction: Peptic ulcer is a common gastrointestinal disease characterized by inflammation and ulceration of the stomach or small intestine. The disease can be caused by a variety of factors, including infection with Helicobacter pylori, use of nonsteroidal anti-inflammatory drugs (NSAIDs), and smoking.

Saffron is a medicinal plant with antioxidant, anti-inflammatory, and antimicrobial properties. Laboratory studies have shown that saffron can help reduce inflammation and ulceration in the stomach lining.

In this study, the effects of saffron on the treatment of peptic ulcer in rats were investigated. Rats were divided into two groups: the first group received 50 mg of saffron per kilogram of body weight daily for 4 weeks, and the second group received a placebo.

Method & material: In this study, 40 male Wistar rats were divided into two equal groups: the first group received 50 mg of saffron per kilogram of body weight daily for 4 weeks, and the second group received a placebo.

Before and after the treatment period, the size of the ulcers was measured in both groups. Inflammation levels in the stomach lining of rats were also measured using an ELISA assay.

Result: The results showed that the size of the ulcers was significantly reduced in the saffron group compared to the placebo group (0.3 ± 0.1 vs. 1.2 ± 0.2 mm, $p < 0.05$). Inflammation levels in the stomach lining of rats in the saffron group were also significantly reduced compared to the placebo group (12.5 ± 2.5 vs. 25.0 ± 5.0 ELISA units, $p < 0.05$).

Conclusion: The results of this study suggest that saffron may be an effective treatment for peptic ulcer. Saffron may help heal ulcers by reducing inflammation and irritation in the stomach lining.

G-1101

The application of bone allograft in mastoid obliteration after mastoidectomy

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Introduction: Mastoid obliteration is recommended to reduce both complications and recurrence. Allogeneic bone grafts are widely used in common procedures, especially in reconstructive surgeries. In the present study, we used bone allograft for mastoid obliteration and reconstruction of the external auditory canal after canal wall down mastoidectomy (CWDM).

Method & material: This is a Prospective, single-arm, open-label trial. Patients were recruited from Shahid Dastgheib Hospital and Dena private hospital (Shiraz, Iran). The protocol and patient-informed consent forms were reviewed and approved by the local Ethics Committee of Shiraz University of Medical Sciences (IR.SUMS.MED.REC.1400.320). The study was registered at the Iranian Registry of Clinical Trials (IRCT20131020015083N4; https://www.irct.ir/trial/62447). Inclusion criteria were adult patients (18 years old) who had undergone retrograde CWDM due to chronic otitis media with cholesteatoma. After retrograde CWDM, bone allograft was used for mastoid obliteration. The senior resident, as the assessor, investigated the tympanic membrane graft success rate, timing of epithelialization, presence of granulation tissue, and otorrhea as the primary outcomes. Pre-operative hearing outcomes were compared with post-operative audiometry 6 months after surgery as the secondary outcomes. The analysis was conducted using SPSS 25 software (SPSS Inc., Chicago, IL, USA).

Result: We achieved a tympanic membrane graft success rate of 86.67% (26 out of 30 patients). Granulation tissue was developed in 9 (30%) patients, but it was mild, so we managed it by the application of trichloroacetic acid 5% in 8 patients. Only one patient underwent revision surgery due to severe granulation tissue formation. Otorrhea was observed in all 9 patients with granulation tissue (30%), but it was stopped after the application of trichloroacetic acid in 8 patients. Persistent otorrhea was reported only in one patient with severe granulation tissue formation. In 29 patients (96.67%), epithelialization of the mastoid cavity was completed after 2 months of follow-up. There was no significant change in audiometric variables and pattern of hearing loss before and after the operation, except in one patient with persistent otorrhea due to granulation tissue. No cavity problems or bone pâté infections were seen.

Conclusion: The initial results of post-operative tympanic membrane graft success rate, rate of epithelialization, and auditory results were encouraging and satisfactory. In conclusion, the availability and affordability of bone allograft suggests its applicability for mastoid obliteration and external auditory canal reconstruction in retrograde CWDM. We suggest further studies with a larger sample size, control group, long-term follow-up and inclusion of patients who had undergone revision surgeries.

G-1106

Impact of Age at Diagnosis of Bladder Cancer on Survival

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Introduction: Bladder cancer is the second most common tumor of urinary-lesser-renovated system after prostate cancer, which is three times as much as women as women and is more common in whites. Various factors have been found as factors affecting or surviving these patients. But so far, no comprehensive study of age at the time of diagnosis on the prognosis and survival of these patients has not been conducted. Therefore, in this study, we examine some factors affecting the survival of patients with the bladder concentration with emphasis on the role of age at the time of its diagnosis

Method & material: In this historical cohort study,198 patients diagnosed with bladder cancer who underwent surgery in Shahid Beheshti Hospital of Babol city between 1391-1400 were included in the study.The inclusion criteria were the pathological confirmation of the presence of bladder cancer and the availability of patient file information. Information related to demographic parameters,history of smoking, location of tumor in the bladder,clinical symptoms,initial treatment, and pathological information (type of pathology, grading and staging) of the patient were collected. In order to check the latest status of the patients, they were contacted and the life status of the patients was recorded. After collecting the data, they were analyzed with SPSS V.26 software. Chi-square and t-test were used to compare normal and qualitative quantitative parameters in two groups, and Kaplan-Mier survival analysis was used to examine the survival of patients and the factors affecting it. A significance level of 0.05 was considered

Result: One hundred and ninety-eight patients with an average age of 62.00 ± 12.52 years were included in the study. Most of the patients were male (80.8%), had single tumor (83.3%) and urothelial carcinoma pathology (95.5%). In addition, the most common clinical symptom at the time of presentation was painless gross hematuria. There was no significant difference between men and women in age, tumor recurrence rate, tumor stage and grade,and survival rate (P=0.08). 38 people (19.2%) died at the end of the study. The median survival time of patients was 7 years. The variables of age,gender,smoking, disease stage and clinical symptoms were entered into the Cox regression model.The variables of age at the time of diagnosis (HR=1.16, p-value0.001) and disease stage (HR=1.96, p-value=0.04) were effective on the survival of patients

Conclusion: Bladder cancer diagnosis age is an important predictor of bladder cancer survival rate, so increasing age at the time of diagnosis has a worse prognosis. In addition,as the stage of the disease increases,the survival of patients decreases

G-1108

Factors affecting surgical outcome of tympanomastoidectomy

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Introduction: Chronic Otitis Media (COM) is a multifactorial disease that manifests itself in the middle ear, mastoid, and eustachian tube. The main treatment for COM with cholesteatoma is often surgery. Tympanomastoidectomy is a procedure to remove COM from the middle ear, and tympanoplasty is used to repair tympanic membrane. The present study aims to evaluate the factors affecting the final outcome of tympanomastoidectomy in terms of hearing and the final outcome of tympanoplasty graft.

Method & material: During the period of April2017 to December2019,patients who underwent tympanomastoidectomy were included in the study. The total number of patients was160,some of whom were excluded from the study due to lack of desired characteristics or lack of proper follow-up. In the 12weeks after the operation,audiograms were taken from the patients.The design code of ethics is 671.IR.sums.med.rec.1398. SPSS software is used to analyze the data. Fisher's exact test,independent t-test,paired t-test and one-way analysis of variance were used to examine the relationship between variables.

Result: From all 75 patients, the most and the least site of perforation were central and posterior. More than 90% of the operations were successful and all the failures were during the CWU operation. There was no significant relationship between success rate and gender, age(both age groups studied),smoking, type of surgery,being unilateral or bilateral, the site and size of perforation.In addition,there is no significant relationship between postoperative recurrence and age, being unilateral or bilateral,type of surgery,the site and size of perforation. There is no significant relationship between the mean difference of SRT and air-bone-gap(ABG) before and after surgery with patients' age, type of surgery,the site and size of perforation,and being unilateral or bilateral perforation.

Conclusion: The anatomical and functional outcome of tympanomastoidectomy is influenced by various pathological and technical factors.Women and people over the age of eighteen and non-smokers had the highest percentage and most patients had unilateral perforation.More than90%of the operations were successful and all failure and recurrence happened during the CWU operation. There was no significant relationship between gender,age,smoking,type of surgery,being unilateral or bilateral, and the site and size of perforation with surgery success, recurrence and postoperative complications.The difference between ABG and SRT before and after surgery was significantly reduced.There was no significant relationship between the mean difference of SRT and ABG before and after surgery with patients' age,type of surgery,the site and size of perforation,and being unilateral or bilateral perforation.

G-1109

Investigating the role of Mobile Health in teaching self-care for celiac disease: A systematic review

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Introduction: Celiac disease is a common autoimmune disorder that is triggered in genetically susceptible individuals by consuming gluten protein found in wheat, barley, and rye, leading to the destruction of the villi in the small intestine. Some of the most common symptoms of this disease include bloating, nausea, weight loss, fatigue, constipation, and diarrhea. The only treatment for this disease is to eliminate gluten from the diet, and so far, no other treatment has been found. However, it should be noted that mobile health technology and self-care education can be used to improve the quality of life for patients with celiac disease.

Purpose: The aim of this study was to investigate the role of mobile health in self-care education for celiac disease.

Method & material: This study was conducted as a systematic review and by searching the reliable databases such as PubMed, Web of Science, Scopus, and Google Scholar search engine. The keywords self-care, celiac, and mobile health were examined without time limitation. English-language studies that investigated the role of mobile health in teaching self-care for celiac disease met the study inclusion criteria. Titles and abstracts were independently reviewed based on eligibility criteria. Then the full text of the articles was evaluated. An identical form with the fields of study title, study objectives, and main findings of the study was used for the data extraction stage.

Result: A total of 750 articles were obtained, of which 20 relevant articles were included in the study. 65% of patients with celiac disease suffer from symptoms and pain caused by the disease, which have been reduced through self-care education and the use of mobile health. In addition, in 16 studies (80%), the role of mobile health in improving of celiac disease and the satisfaction of patients with it was mentioned. In 4 articles (20%), mobile health applications were also referred to for self-care education of celiac disease, which proved to be very useful and effective, enabling users to take care of themselves by creating order in their diet plan.

Conclusion: According to studies conducted, mobile health applications are still in their early stages of development; however, the results of their examination have shown overall satisfaction with self-care education in celiac disease and have played an effective role in improving the quality of life and psychological-social outcomes of patients

G-1113

Prediction of noise using artificial neural network modeling and statistical methods in the woodworking industry

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Introduction: Noise pollution is one of the most important pollutants in the work environment and is almost one of the harmful factors for workers' health. Sound prediction is one of the important aspects of sound control in industries. Forecasting is important in the carpentry industry, which is an important part of the woodworking industry and workers are exposed to excessive noise. There are many methods for predicting noise. Therefore, in this study, we predicted the amount of sound using artificial neural network modeling and statistical methods in the woodworking industry.

Method & material: This research is a study Descriptive, analytical -cross-sectional that was carried out in 6main phases, which include: Identifying and collecting data ,Determining the evaluation criteria of statistical models and artificial neural networks ,Constructing multiple regression ,Implementing artificial neural networks ,Optimizing the weights of artificial neural networks It is model sensitivity analysis with genetic algorithm. In the first stage, data was collected from 375 carpentry workshops in Tehran province, Khavaran, Chahardangeh, Nematabad and Delavaran industrial towns. From the 10main characteristics of acoustic, structural and carpentry processes that affect sound,in the next step, evaluation criteria were presented for comparison and accuracy of both statistical models and artificial neural networks.Then statistical analysis of multiple regressions was done. Then, artificial neural network modeling was implemented with the help of MATLAB software.In the next step,the weights of artificial neural networks were optimized using the genetic algorithm, then the sensitivity analysis of the model was performed using calculations

Result: With the help of evaluation criteria, two models of artificial neural networks and statistical methods were compared. The results showed that artificial neural networks provide more accurate prediction than multiple regression. The best neural network can accurately predict the equivalent sound level, our results showed that the developed experimental methods can be a useful tool for the analysis of noise pollution and enable occupational health professionals to use these methods.

Conclusion: The artificial neural network model showed higher accuracy compared to linear and non-linear regression statistical models. In this study, the artificial neural network was trained 13,000 times by the gradient descent algorithm, which showed higher accuracy compared to similar studies where the repetition rate of the training algorithm was much lower, so this study showed that by increasing the repetition, the prediction accuracy can be increased. . Finally, a graphical user interface program was presented using factors affecting sound to predict noise in the woodworking industry

G-1114

The effect of planned training on the hope and anxiety of relatives of mechanically ventilated patients

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Introduction: Anxiety is the most common psychological response of family members of patients hospitalized in the special care unit, hope as one of the Human coping resources in adapting to problems and incurable diseases. the aim of the study is the effect of the planned training of hope on the hope and anxiety of relatives of patients under mechanical ventilation.

Method & material: This semi-experimental study was conducted on 60 family members of patients hospitalized in the intensive care unit of Allameh Bahloul Gonabadi Hospital who were eligible to participate in the research in 2018. Data collection tools included Spielberger and Omid Miller anxiety questionnaires.

After completing the pre-test, the participants were randomly assigned to one of the intervention and control groups. In the intervention group, the planned training was conducted based on the Snyder and Worthington educational protocol, in sessions during the first 1-3 days after the patient was connected to the mechanical ventilation device. Data analysis was done with SPSS version 20. Descriptive statistics were used to describe demographic and clinical variables. To determine the normality of the data, the Klomogrove Smirnov test was used, and to analyze the data, independent t-tests, chi-square and Fisher's exact tests were used at a significance level of less than 0.05.

Result: The results indicated that the anxiety score was high and the hope score was low in the two groups before the intervention. While after the intervention, the average score of anxiety in the intervention group decreased significantly compared to the control group, the average score of hope increased significantly. According to the independent t-test results, the two groups did not have a significant difference in terms of overt anxiety score and latent anxiety score before the intervention. Although the two groups did not have a significant difference in the overt anxiety score after the intervention, but the average score in the intervention group was lower and there was significant difference in the hidden anxiety score, so that the hidden anxiety score in the intervention group decreased.

Conclusion: according to the findings, the use of planned training of hope reduces the level of overt and hidden anxiety and increases the level of hope of the family members of patients under mechanical ventilation. It seems that the effective reason of the planned hope training in this research is that hope is an internal quality and can give energy to person, increase positive emotions and reduce negative emotions.

G-1161

Investigating the effect of educational intervention based on the transtheoretical model on the physical activity of diabetic patients in Iran

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Introduction: Regular physical activity can reduce mortality in people with diabetes and prevent complications from the disease. Planning to change behavior in these people to improve self-care is very important. For this purpose, the present study was conducted with the aim of investigating the effect of the educational intervention based on the transtheoretical model on the physical activity of diabetic patients

Method & material: This interventional study was conducted in 1400 on 120 patients with type 2 diabetes in Rasht city. The samples of this study were divided into two intervention groups (60 people) and control (60 people) using 2 random block methods. The tools used in this study included demographic information questionnaires, models of stages of change and physical activity. Then, the educational intervention, which included lectures, pamphlets, and educational CDs, was implemented for the intervention group. While the control group did not receive any training. After a month of follow-up, the patients completed the questionnaire again. Data analysis was done using SPSS version 20 software and using descriptive and analytical statistical tests including independent t-test, chi-square, Fisher's exact test and Wilcox-Van signed rank test.

Result: The average age of the participants in this study was 58.37 ± 10.11. Among them, 87 were women (72.5%) and 33 were men (27.5%). The results showed that there was no significant difference in performing regular physical activities between the intervention and control groups before the educational intervention, but after the intervention, physical activity in the intervention group was more than the group without educational intervention, and this difference is statistically significant. P = 0.004). Also, the results of this study showed that the changes in activities between the intervention and control groups, based on individual and social studies, are significant in most cases (P 0.05). There was a statistically significant difference in the implementation of physical activity changes in the intervention group after the educational intervention (p0.001).

Conclusion: The results showed that training patients with diabetes in the field of physical activity based on the transtheoretical model is effective in progressing the stages of change and increasing the regular physical activity score of patients. Therefore, it is recommended to design and implement educational programs to promote physical activity based on behavior change theories in order to improve the control and management of type 2 diabetes.

G-1164

Investigation the physicochemical compatibility of anti–asthmatic drug salbutamol with common excipients in order to formulate dry powder inhaler

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Introduction: Salbutamol is a beta-agonist receptor that is used in asthmatic and chronic obstructive pulmonary disease (COPD) patients. This medicine is available in different dosage forms; syrup, metered dose inhaler (MDI) and dry powder inhaler (DPI). In order to formulate a medicine, drug – excipient compatibility is one of the most crucial matters in order to achieve the best quality parameters which could directly influence the patient's safety. For DPI formulations FDA approved excipients are lactose, glucose and mannitol. Also, recently leucine has been used frequently in DPI formulation. In this study compatibility of salbutamol with the mentioned excipient was investigated.

Method & material: Visually examination, thermo-analytical techniques such as differential scanning calorimetry (DSC) and Fourier transform infrared spectroscopy (FTIR), chromatographic method (HPLC) were used to evaluate any potential incompatibility. Binary mixtures of salbutamol sulfate and excipients were prepared in different ratios (1:1, 1:10 and 1:67.5 similar to commercial form) and stored 2 months at elevated temperature and humidity (40 °C and adding 20% w/w water). samples were analyzed before and after storage.

Result: DSC, FTIR and HPLC results confirmed each other except for glucose. All methods confirmed that there is an incompatibility potential with the excipients. HPLC results show the amount of salbutamol was decreased after storage except for glucose while DSC and FTIR show the sign of incompatibility.

Conclusion: Findings reveal that excipients used for DPI formulation could be incompatible with salbutamol. In order to find the degradation compounds and pathways, further studies are needed.

G-1171

Using Telemedicine to provide health services in Prison: A Systematic Review

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Introduction: Prisoners face a higher risk of contracting diseases, making access to healthcare critical. Telemedicine technology offers a solution by enabling prisoners to participate in self-care and receive more timely medical services while reducing costs. This approach not only benefits prisoners but also improves the overall healthcare system. In light of the challenges prisoners encounter in accessing healthcare, this study seeks to determine whether telemedicine can effectively serve as a solution for providing better medical services to prisoners.

Method & material: This study was conducted through a systematic review approach. Several databases, such as Magiran, SID, Google Scholar, PubMed, and ISI, were searched using relevant keywords such as Telemedicine, Prison, Telehealth, Medical Technology, Medical Communication, and their Persian equivalents from 2013 to 2023. A total of 590 articles were obtained from the search operation, which were meticulously evaluated based on predetermined criteria. In addition, during the analysis process, 97 articles were excluded from the study for being irrelevant or repetitive. Ultimately, 29 articles that met the necessary criteria were included and thoroughly reviewed.

Result: Of 29 eligible articles, 14 articles were in English and 15 were in Persian. The results showed that most of the studies focused on the effect of telemedicine in improving prisoners' behavior and showed that telemedicine had a good impact on improving prisoners' behavior and reducing vandalism and violence in prisons, as well as improving relations between prisoners and personnel. Also, studies showed that telemedicine technology has great potential to improve prisoners' conditions and can reduce vandalism and violence in prisons by providing the necessary training. In general, the studies conducted in telemedicine indicated that telemedicine could be considered an efficient tool to improve the conditions of prisoners.

Conclusion: Findings suggested that implementing telemedicine in prisons can positively impact inmates' behavior by decreasing instances of destruction and violence, fostering better relationships between inmates and prison staff, and lowering medical expenses. Additionally, telemedicine can significantly improve the overall health of prisoners and help prevent the spread of illnesses among them. Moreover, this technology offers increased access to specialists, reduces the need for transfers, and minimizes waiting times for medical services.

G-1172

Transcriptomic profiling of Peripheral Blood Mononuclear Cell in mustard lung by systems biology approach

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Introduction: Sulfur mustard (SM) is a substance that causes blisters and has been repeatedly used by Iraq in chemical warfare against more than 100,000 Iranians. The main issue for these people is various pulmonary problems similar to chronic obstructive pulmonary disease (COPD).

Method & material: Our study analyzed the total RNA profile extracted using the RNA-seq technique from peripheral blood mononuclear cells (PBMCs) isolated from mustard lung (ML) patients of all three groups (Severe, Moderate, and Mild) in terms of disease in healthy control (HC) subjects on the BGISEQ platform (Paired-end, 7GB data, and rRNA depletion). However, given the importance of the severe group in terms of clinical problems, we prioritized studying this group. Differential expressed genes (DEGs) of the severe group versus HC were obtained using the limma package. DEGs were analyzed through bioinformatics tools, and their gene ontology (GO) and enrichment analysis (EA) were evaluated. Then String-db and Cytoscape tools were used to search for the most important functional genes.

Result: We identified SERPINA1, MAPK3, MMP9, FOXO3, SLC4A1, FCGR3B, CXCR2, PTGS2, HBA2, GPX1, IL1RN, IFNG, RPS29, CXCL1, FPR1 and RPS9 genes using hub and bottleneck criteria. Based on the analysis of important genes, several biological pathways were identified, including innate immunity, inflammatory response, activation of neutrophils, cellular response to cytokines, cellular response to oxidative stress, lipoxygenase pathway, and macrophage differentiation.

Conclusion: Innate immunity and neutrophils play a crucial role in the pathogenesis of these individuals. The signaling pathways of interleukins 4, 10, and 13 stimulate the differentiation of lung macrophages (MQs) into M2, which is essential for repair, remodeling and inflammation. Additionally, reactive oxygen species (ROS) activate Protein kinase B (PKB), also known as AKT, through Phosphoinositide 3-kinases (PI3K), and increase the activity of nuclear factor kappa-light-chain-enhancer of activated B cells (NF-κB), which results in decreased histone deacetylase2 (HDAC2). This is one of the important pathways of pathophysiology in these patients.

G-1182

Investigating the role of Mobile Health in teaching self-care for Periodontitis disease: A systematic review

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Introduction: Periodontitis is a chronic inflammatory disease that occurs in the area of the teeth and gums and affects the supportive tissues with dental vessels. This disease occurs when gum inflammation spreads to the bone beneath the tooth. Symptoms of this disease include bleeding gums, pain and swelling in the tooth and gum area, bad breath, and sensitivity in the teeth. If left untreated, periodontitis can lead to tooth loss. On the other hand, the use of mobile health technology and self-care education through it, plays a significant role in preventing the onset of this disease.

Method & material: This study was conducted as a systematic review and by searching the reliable databases such as PubMed, Web of Science, Scopus, and Google Scholar search engine. The keywords self-care, periodontitis, and mobile health were examined without time limitation. English-language studies that investigated the role of mobile health in teaching self-care for periodontitis disease met the study inclusion criteria. Titles and abstracts were independently reviewed based on eligibility criteria. Then the full text of the articles was evaluated. An identical form with the fields of study title, study objectives, and main findings of the study was used for the data extraction stage.

Result: A total of 39 articles were obtained, of which 5 relevant articles were included in the study. In three articles (60%), the use of mobile applications in self-care for periodontitis has shown that behavioral change observed in oral and dental health is very important and effective. In two articles (40%), no significant difference in disease improvement was observed between the intervention and control groups. However, behavioral change observed in individuals who frequently used these applications has led to improvement in oral and dental health and prevention of periodontitis.

Conclusion: The results of this study showed that the use of mobile health applications plays an important role in educating patients about self-care for periodontitis. Mobile health, along with providing necessary education, increases patients' awareness about prevention and treatment methods of this disease. Therefore, the use of this technology leads to improved treatment and reduced clinical complications of periodontitis.

G-1183

Evaluation of HAPPYneuron®, a Computerized Cognitive Training Medium, as a Tool for Remediation of Cognitive Impairments: A Systematic Review

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Introduction: Cognition is considered a means of socialization by which humans can interact with social stimuli. Human cognitive status can unfairly change by various complications. These changes are known as cognitive impairments. Cognitive functions can be improved by stimulations. Computerized Cognitive Training (CCT) is an interesting stimulating strategy that is used to remediate cognitive impairments. HAPPYneuron® is a game-based platform developed to optimize CCT and enhance its outcomes. This study aims to review available evidence about this tool and make an evaluation of its effectiveness easier.

Method & material: The literature search was conducted from 1st July 2012 until March 4th, 2022, for studies that were indexed in EMBASE, PubMed, PsycINFO, and Web of Science with the following keywords: "HAPPYneuron OR Vital-neuron OR Scientificbraintrainingpro AND cogniti* AND computer*" then two independent authors read the titles and chose relevant articles based on selection criteria. The articles on the HAPPYneron website and the references of finally selected articles also undergo the selection process.

Result: Eighteen studies were included in the review. Seven studies with schizophrenia as the underlying cause of cognitive impairments and 11 studies with other causes. 910 participants attended all studies. The minimum age of participants was 17 without a specified maximum age. Studies duration: one study lasts for a year, 6 studies last between 6 to 12 months, and others less than 6 months. The cognitive functions of participants were assessed in all studies, but they did not use the same measurement tools. Most of the assessments showed improvement following the intervention. The cognitive assessments showed that using CCT on the HAPPYneuron® platform significantly improves cognitive function during interventions. Cognitive function improvements in long-term follow-ups were also proved in several studies. However, the durability of the CCT effects needs more investigation.

Conclusion: The underlying cause and consequently neural mechanisms of cognitive impairments were different in the studies, cognitive assessment tools and age range of participants were not similar, and the duration time of studies was not impressive; so, despite the obvious improving results of using HAPPYneuron® on cognition, the long-term effect of this platform is not validated. More studies with a larger sample size for each kind of cognitive impairment are needed to specify and verify the effectiveness of HAPPYneuron, especially long-term effects on certain complications.

G-1185

Effect of self-care education on lifestyle and quality of life in patients with inflammatory bowel diseases: A comparison between a smartphone application and teach-back

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Introduction: Choosing the best method for self-care education is considered an important step in improving patients' lifestyle and quality of life (QoL). Therefore, the current study was conducted with the aim of comparing the effect of self-care education through two methods of a smartphone application (app) and teach-back (TB) on lifestyle and QoL in patients with inflammatory bowel diseases (IBD).

Method & material: This study was a three-stage randomized clinical trial, which was conducted among 90 patients with IBD in Mashhad, Iran, in 2020-2021. Eligible patients were allocated to 3 groups of the app, TB and control using a simple blocked randomization. In each group, data were collected twice, before and after the intervention, using a demographic checklist, Crohn's Disease and Ulcerative Colitis questionnaire and Miller-Smith Lifestyle questionnaire. Collected data were then analyzed using SPSS v25.

Result: Before the intervention, the results of one-way analysis of variance showed that there was no statistically significant difference between the three groups in terms of the mean scores of lifestyles and QoL (p0.05). However, a significant difference was observed between the three groups after the intervention (p0.05).

Conclusion: The results of this study showed that self-care education through two methods of an app and TB has a significant effect on improving IBD patients' lifestyle and QoL, and there is no significant difference between the two methods in terms of effectiveness. However, considering the advantages of apps, it is suggested to apply this method for patient education.

G-1194

Investigating the Role of Mobile Health in Lupus Self-Care Education: A Systematic Review

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Introduction: Lupus is a chronic autoimmune disease. One of the most common symptoms of this disease is skin rashes that usually appear in the form of butterflies. Although a lot of research has been done in this field, this disease still has significant mortality and there is no complete treatment for it. On the other hand, to improve the quality of life of patients, it is possible to use mobile health technology and self-care training.

Method & material: This study was conducted as a systematic review and by searching the reliable databases of PubMed, Scopus, Web of Science, and Google Scholar. The keywords Self-care, Lupus, and Mobile health were investigated in related studies between 2020 and 2022. English-language studies that investigated the role of mobile health in lupus self-care education met the inclusion criteria. Titles and abstracts were independently reviewed based on eligibility criteria. Then the full text of the articles was evaluated. An identical form with the fields of study title, year of publication, country, number of participants, study objectives, and main findings of the study was used for the data extraction stage.

Result: A total of 850 articles were obtained, of which 20 related articles were included in the study. 75% of lupus patients complained about the pains that plagued them during the day, and through self-care training, these pains were reduced and the disease improved. 75% of the patients with lupus complained about the pains that plagued them during the day, that these pains were reduced and the disease improved through self-care training. Also, 60% of the studies (12 articles) mentioned the role of mobile health in the improvement of lupus disease and the satisfaction of patients with it. In 20% of the studies (4 articles), mobile health applications were used efficiently for lupus self-care education.

Conclusion: The results of this study showed that the use of mobile health in the self-care education of lupus patients will increase their quality of life. However, more studies should be done in this field in order to increase the awareness of patients and their families.

G-1205

The effect of chamomile supplementation on lipid profile in adults: A systematic review and meta-analysis

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Introduction: Chamomile and its products have been considered as potential herbal remedies for several conditions, such as cardiovascular, hepatic and gastric diseases, among others. Until now, the effects of chamomile administration on lipid profile have not been sufficiently appraised. The present study evaluated the effects of chamomile administration on the lipid profile such as total cholesterol (TC), triglycerides (TGs), high density lipoproteins cholesterol (HDL-C), and low-density lipoproteins cholesterol (LDL-C).

Method & material: Following databases were searched for eligible randomized controlled trials (RCTs) published from inception to April 2023: PubMed, EMBASE, Web of Science, Google scholar, and Cochrane Library. Medical subject heading terms and keywords used to identify studies included: Chamomile AND lipid control OR total cholesterol OR TC OR triglycerides OR TG OR high-density lipoproteins cholesterol OR HDL-C OR low density lipoproteins cholesterol OR LDL-C. Weighted mean differences (WMD) were pooled using a random-effects model. Heterogeneity, sensitivity analysis and publication bias were reported using standard methods. The present study has been performed by a grant from the Student Research Committee, Isfahan University of Medical Sciences (grant number: 1402175).

Result: Of 349 studies identified, four trials, comprising 234 were included in the meta-analysis. Pooled analysis of seven RCTs, demonstrated that the administration of chamomile led to a significant reduced TC (WMD: -22.15 mg/dl, 95% CI: -36.72, -6.84; p=0.039, I2 = 56.3%). However, other serum lipids including HDL-C (WMD: 0.79 mg/dl, 95% CI: -1.73, 2.68; p=0.593, I2 = 16.2%), TG (WMD: -16.82 mg/dl, 95% CI: -43.55, 8.68; p = 0.325, I2 = 75.7%), or LDL-C (WMD: -11.59 mg/dl, 95% CI: -24.37, 2.57; p=0.085, I2 = 72.5%) did not alter after the administration of chamomile. Subgroup analysis revealed that the sample size, and duration of chamomile supplementation could be sources of between-study heterogeneity.

Conclusion: The supplementation of chamomile can significantly reduce the TC concentrations in humans. Further RCTs with prolonged durations and powerful design are needed to specify the exact mechanism, optimal dosage, and duration of chamomile supplementation to obtain a beneficial effect on lipid profile.

G-1211

The Effect of spiritual reminiscence therapy on depression in the elderly living in Shahroud City: A quasi-experimental study

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Introduction: Depression is the second most disabling factor for the elderly in human societies. This common mental disorder causes a loss of interest and inability to do daily activities that a person enjoyed doing until two weeks ago. To reduce the depression of the elderly, many measures are taken, including drug therapy, meaning therapy, lifestyle changes, etc. One of these methods is spiritual reminiscence therapy (SRT), which effectively treats depression by affecting lifestyle, interpersonal interactions, and personal behaviors. Therefore, this study was designed and implemented to determine the effect of SRT on the depression of the elderly living in Shahroud City.

Method & material: The current study is quasi-experimental with a pre-test/post-test and control group design. The research population consisted of 156 elderly people aged 60 to 80 from Shahroud City, who were selected by the convenience sampling method and were randomly assigned to two intervention (n=78) and control (n=78) groups. After completing the demographic information form and the Geriatric Depression Scale, SRT was held in six weekly sessions, each lasting 60 to 90 minutes, by an experienced and skilled psychiatric nurse. After finishing the sessions, the depression of the participants was rechecked using the mentioned scale. Finally, the data were analyzed using descriptive statistics and inferential tests (independent t-test, Chi-square, and analysis of covariance). The significance level in all tests was considered 0.05.

Result: 53.8% of the participants were male, and 46.2% were female. Most of the participants in both intervention and control groups were between 65 and 70 years old. The results of ANCOVA indicated that 8.2% of the total variance or individual differences in participants' depression were related to the SRT. Considering that the average score of depression in the intervention group has decreased, it can be said that the SRT reduces depression in elderly people (P=0.001).

Conclusion: The results of this study showed that SRT plays a valuable role in reducing depression in the elderly. When the elderly participate in SRT, they can make new friends, have deeper friendships, and communicate. Therefore, mutual relationships between individuals and providing social support from others lead to decreased depression in these people.

G-1214

Academic success in the context of students distance education learning environment: A cross-sectional study during the COVID-19 pandemic

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Introduction: Academic success is one of the most essential standards of students' competence. So, investigating its related factors has always been one of the concerns of education system researchers. On the other hand, one of the factors affecting students' academic failure is the learning environment. So that during the COVID-19 pandemic, the universities of medical sciences directed the students out of the hospital and the university towards distance education to comply with the health protocols. This sudden transition has been associated with challenges for universities and students. Therefore, this study was conducted to determine the relationship between academic success, distance education learning environments, and its related factors in students of Shahroud University of Medical Sciences during the COVID-19 pandemic.

Method & material: This cross-sectional study was conducted in the first half of the academic year 1401-1402 on 208 Shahroud University of Medical Sciences students. The students of the third semester and above, who had completed at least two semesters of their studies online, were included using the convenience sampling method. Academic Success Inventory for College Students and Distance Education Learning Environments Survey were data collection tools in this study. Finally, the data were analyzed using descriptive statistics and inferential tests (independent t-test, one-way analysis of variance, Pearson's correlation coefficient, and multiple linear regression using the Enter method).

Result: Students in this study reported moderate academic success (107.81±10.72 out of 156). A positive and significant correlation was also observed between academic success and students' distance education learning environment (P0.001 and r=0.31). Also, students listed the strengths of this environment more than its weaknesses. Variables such as field of study and satisfaction with it were also mentioned as factors related to academic success and students' distance education learning environment (P0.05). In addition, students with a lower academic year found this environment more efficient (P=0.002 and β=2.73).

Conclusion: According to the results of the current study, it is suggested that the development of electronic learning infrastructures and the improvement of the learning environment of distance education of students to improve their academic success, as well as to deal with possible critical and unpredictable conditions such as COVID-19, etc., should be taken into consideration. It is worth mentioning that academic success is more than students' Grade Point Average. Therefore, paying attention to the factors affecting academic success can help to plan and develop educational programs that will have favorable consequences for students and educational centers.

G-1220

Investigating the effect of implementing the five-A self-management model on the care pressure of caregivers of hemodialysis patients

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Introduction: Suffering from chronic renal failure causes significant changes in the lifestyle of this group of patients and seriously reduces the patient's independence and functional ability. This will increase the care pressure on caregivers and family members of the patient. Self-management by improving the ability to manage daily challenges will increase the quality in different aspects of life. This study was conducted with the aim of investigating the effect of the implementation of the 5A self-management model on the care pressure of the caregivers of hemodialysis patients in Qazvin city.

Method & material: This study is a semi-experimental study with a pre-test and post-test design that was conducted on 90 caregivers of hemodialysis patients in 1401. The samples were first selected using the available method and then divided into two intervention and control groups using random block allocation method. The data collection tool in this study included demographic information questionnaire and ZARIT care measurement tool. The practical interventions of self-management training based on the self-management model based on the five A model provided by Glasgow were held in a group manner in five stages. Analyzing and comparing the data in the two intervention and control groups, before, immediately, one month and three months after the intervention using SPSS software version 25 and descriptive statistics tests, Chi-Square. Independent t and repeated measures variance were performed.

Result: The average age of caregivers in this study was 47.18 ± 13.77. Most of the caregivers (71.4%, 55 people) were women. The results showed that the pressure of care before the intervention was significantly higher in the intervention group than in the control group (P=0.018); But in the intervals immediately after the intervention (P=0.018), one month (P=0.004) and three months after the intervention (P=0.003), the scores of the intervention group were reported to be lower in terms of caregiving pressure. In general, the effect of time (P0.001) and the interaction effect (P0.001) were significant, which indicated the positive effect of the intervention on caregivers' care pressure, but the effect of the group without considering time was not statistically significant (P=/0335).

Conclusion: The implementation of the self-management program based on the five-A model has significantly reduced the care pressure of the caregivers of hemodialysis patients. Managers and planners of hemodialysis clinics can use the results of this study to reduce care pressure and improve the mental health of patients and their families.

G-1222

Investigating the efficiency of the photocatalytic process in the removal of tetracycline antibiotic using magnetic nanocomposite coated with ZIF-8.

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Introduction: With the increase in population and the spread of various epidemics in the world, the consumption of medicines has increased dramatically. The high solubility, low biodegradability and high toxicity have caused these compounds such as tetracycline to be classified as emerging pollutants even at low concentrations. Until now, various methods have been used to remove the antibiotic tetracycline from water sources. Processes such as surface adsorption, advanced biological and chemical methods are not effective in eliminating the overall risk due to high energy consumption, high treatment time and incomplete decomposition of tetracycline. The photocatalytic process is a type of advanced oxidation technology for tetracycline degradation due to its high efficiency. So, the aim of this research is determining the efficiency of magnetic green nanocomposite coated with ZIF-8 for degrading tetracycline in aqueous environments.

Method & material: This research was an experimental study that was carried out on a laboratory scale and at ambient temperature. In this study, first, the desired magnetic nanocomposite was synthesized using the dracocephalum plant extract, and its properties were characterized using XRD, FTIR, FESEM, DRS and VSM analyses. Also, the factors affecting the removal of tetracycline in the desired photocatalytic degradation process include; pH (3-9), contact time (5-200 min), pollutant concentration (5-100mg/L) and nanocomposite dose (0.025-1g/L) were studied. In addition, the kinetics of the photocatalytic reaction as well as the efficiency and reusability of the synthesized nanocomposite in removing tetracycline in six consecutive cycles were investigated.

Result: The important achievement of DRS analysis is that the modification of the ZIF-8 material with magnetic nanoparticle resulted in the excellent modulation of band gaps from 5eV to 1.8eV. In addition, the findings revealed that the elimination efficiency increases with the increase in pH and with the growth of the catalyst dose, the pollutant removal first increases and then decreases. So, in optimal conditions (pH=9, 200 min and 0.5g/L nanocomposite), the efficiency of the photocatalytic process in removing tetracycline with a content of 20mg/L was 95%. Also, the degradation kinetics of tetracycline followed the pseudo-first-order equation (R20.9). After six consecutive cycles, the efficiency of the synthesized catalyst did not diminish notably, so the removal efficiency decreased by only 4.6% from the first cycle to the last one.

Conclusion: Finally, based on the obtained results, it can be concluded that the photocatalytic process using green magnetic nanocomposite with coted ZIF-8 is effective for removing tetracycline from aqueous environments and its reuse is economically viable.

G-1225

The relationship between self-concept and resilience in dialysis patients

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Introduction: The last stage of kidney disease is defined as an irreversible decrease in kidney function, which causes a decrease in the quality of life and mental health of patients, and with a decrease in resilience, the amount of self-care also decreases, which is essential to identify the factors affecting the resilience of patients. Is. Therefore, the purpose of this study is the relationship between self-concept and resilience in dialysis patients of Ali Ibn Abi Talib Hospital, Zahedan city, 1399-1400.

Method & material: This study was conducted on 70 patients undergoing hemodialysis. After recording demographic information and clinical points, self-concept was recorded by Rogers self-concept questionnaire and resilience was recorded by Connor and Davidson's resilience questionnaire. Pearson's correlation coefficient was used to correlate the data.

Result: The findings of our study showed that the average resilience score of the studied subjects was 21.63 ± 02.14 (38 to 97) and the average self-concept score was 10.17 ± 2.99 (31.5 to 16). In such a way that 7 people (10%) had a positive self-concept, 34 people (6.48%) had a neutral self-concept, and 29 people (4.41%) had a negative self-concept. Low resilience was more in women and related to age. marriage and education, and also self-concept was not related to age, gender, marriage and education, but it was found that self-concept has an inverse and significant relationship with the total resilience score (r = -0.034 and P = 0.003) and positive acceptance subscale (- r=0.28 and P=0.015) and the control had r=0.24 and P=0.045.

Conclusion: Considering the inverse relationship between resilience and self-concept, as well as the negative self-concept of more than 40% of patients, necessary training should be given to dialysis patients regarding increasing self-concept, so that in addition to increasing the positive view of themselves, it also increases the resilience of patients. And in this way, it increased the quality of life of the patients.

G-1230

Diagnosing Colorectal Cancer Using Microbiomes Obtained from Stool Samples

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Introduction: Colorectal cancer is the third most common cancer in the world, which is also known as colon or rectal cancer. Two common methods of diagnosing this disease are fecal occult blood test and colonoscopy. Fecal occult blood testing is limited by both high false positive rates and false negative rates. On the other hand, colonoscopy is expensive and uncomfortable for the patient since it is an invasive method that may cause pain and bleeding. Recent studies have shown a strong connection between the gut microbiome and the development of colorectal cancer. The human microbiome includes bacteria, viruses, fungi, archaea, and other microorganisms that live inside the body or on the skin. Microbiome samples can be collected from different parts of the body, such as skin, lungs, mouth, conjunctiva, and feces. Microbiomes obtained from stool samples could be used for early diagnosis of colorectal cancer that is a promising non-invasive alternative.

Method & material: Different machine learning methods are applied to the Baxter dataset, for diagnosis of colorectal cancer, Microbiome data, which includes sequence data from 16s rRNA gene in the form of taxonomy tables. The proposed method of this research consists of various preprocessing steps: data reduction, filling in unknown data, understanding the hierarchical structure of data, collapsing bacteria on different levels (kingdom, phylum, class, order, family, and genus), removing infrequent features, merging with metadata, balancing and normalizing data, and building machine learning models

Result: We found that the Random Forest algorithm performs well among different machine learning models. We evaluated the model using various criteria consisting of accuracy, sensitivity, specificity, precision, and AUC in different experiments (removing 0, 5, 10, 15, and 20% of less frequent bacteria observed in the samples and its combination with and without a relative abundance of bacteria). Based on the results, we found that applying an appropriate preprocessing procedure significantly increases the performance of the Random Forest algorithm according to the measured criteria. The highest score of accuracy obtained is related to the methods of removing 5% and 20% of low-repetition features without calculating the relative frequency, which is 83% for both methods.

Conclusion: processing procedure, classical machine learning algorithms perform as well as complex deep learning methods.

G-1240

The impact of using digital health to control blood pressure in the covid-19 pandemic: A systematic review

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Introduction: Hypertension is an increasingly prevalent disease worldwide and is responsible for the death of one in six adults in the United States each year. Optimal management of this disease includes frequent blood pressure monitoring and titration of antihypertensive medications, but in the traditional office-based care model, patients' blood pressure is measured only intermittently. The COVID-19 pandemic has accelerated the adoption of technology-based solutions for care delivery, while telehealth has emerged as an evolving care management strategy that is playing an increasingly important role. As a result, this systematic review discusses the impact of the use of digital health in blood pressure management during the COVID-19 pandemic.

Method & material: In this systematic review, studies published in English were searched in electronic databases such as Web of Science, Scopus, Medline, Cochrane using Mesh keywords from the beginning of Covid-19 to 2023. Out of 3723 articles identified, 1980 articles were deleted at the repetition and subject review stage. After applying the inclusion and exclusion criteria, reading the abstract and then the full text of the articles, and using the PRISMA checklist, 29 relevant articles were finally included in the study. The process of searching and reviewing the identified sources started on 22 February 2023 and ended on 22 May 2023.

Result: Of the 29 studies included in the systematic review, 11 articles (37.93%) dealt with remote blood pressure control as the main disease and 13 articles (44.82%) as a co-morbidity. From the point of view of health professionals, the possibility of using telehealth systems is useful and they are satisfied with the use of this method. Patients were also satisfied with the use of telemedicine for treatment, follow-up or prevention of their condition. The most important predictor for digital health technologies was ease of use. The main barriers to using this medical method were technological challenges, connectivity issues, low computer literacy, inability to perform a thorough physical examination, and lack of training.

Conclusion: Among the various modern interventions proposed to improve blood pressure control, the use of home blood pressure monitors has been shown to be one of the most effective. Home BP monitoring is particularly suitable for telemedicine and mobile health solutions.

G-1241

Exploring the Protective Effect of Aurapten Treatment during Pregnancy on Autistic-like Behavior in Mouse Pups

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Introduction: Autism spectrum disorder (ASD) is a neurodevelopmental condition characterized by impaired in sociability,memory,and repetitive behavior. SD prevalence has been increasing, recently.Current research highlights the role of early-life maternal-separation stress,oxidative-stress,and a specific extracellular matrix protein named reelin in ASD.In this study, we aim to explore the potential benefits of Auraptene, a compound with antioxidant and anti-apoptotic properties, on ASD symptoms and oxidative-stress in an animal model. The study seeks to provide new insights into the therapeutic potential of Auraptene and its impact on reelin signaling and ASD pathophysiology.

Method & material: Forty female NMRI mice were randomly assigned to five equal groups using a random number generator in Microsoft Excel. The groups included: Maternal Separation (MS), Control (CR),and three groups receiving different doses of Auraptene via intraperitoneal injection in days 42 to 56 (12.5mg/kg, 25mg/kg, and 50mg/kg).To induce early maternal-stress mice pups were then separated from their mothers for three hours daily(2-14 neonatal days).At 56 to 60 days old, the pups underwent behavioral tests including the Morris Water Maze(MWM),Marble Burring(MB),and Three Chamber(TC) tests to assess memory impairment, repetitive behavior, and sociability deficits among the groups, respectively. Following the behavioral tests, the mice were anesthetized with intraperitoneal injections of Ketamine and Xylazine (60mg/kg and 10mg/kg, respectively). Hippocampus and cortex tissues were extracted for subsequent analysis of antioxidant levels and gene expression. All data were analyzed using One-Way ANOVA and Tukey's post hoc test in GraphPad Prism 9th edition.Statisctical significancy was considered P-values less than 0.05 for all analyses.

Result: MS group exhibited significant latency to find the probe in MWM test,25 and 50mg/kg Aurapten decreased latency time significantly in a dose-response manner(P0.05).Maternal separation caused a significant increase in buried marble number in MB test (Mean=13.60±1.817,CI=-15.68 to-6.717).All three Aurapten doses significantly mitigated repetitive behavior similarly(P0.05).Aurapten at any dosage significantly mitigated sociability deficit in treatment groups(P0.05) in TC test.Brain Malondialdehyde (MDA) as an oxidative marker has been increased considerably in MS group and Aurapten treatment were effective in reducing MDA level in pups brain(P0.05).However, only 25 and 50mg/kg doses successfully increase antioxidant potential of pups brain(P0.05).MS significantly reduced Reelin expression compared to CR group (Mean=2.006±0.7881,CI=-2.074 to 0.5762,P0.001),but treatment modulated gene expression.

Conclusion: Maternal separation in newborn can lead to significant autistic-like behavior, and oxidative-stress among pups. Auraptene, as a potent antioxidant, can reduce consequences of MS separation stress in infancy and may prevent, autistic like behavior in childhood. This active compound could be used in Neonatal Intensive Care Unit (NICU) admitted children to furthers prevent cognition consequences and mitigate ASD symptoms.

G-1251

Graphene/Cobalt oxide (Co2O3)/Neodymium oxide (Nd2O3) nanocomposites: Synthesis, characterization and its application in cancer

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Introduction: According to the World Health Organization (WHO), cancer is the second leading cause of death in the world. Traditional cancer therapies don't show enough efficiency against the cancerous cells because of drug resistance and lack of selectivity for tumor cells, leading serious side effects; nanotechnology can play an important role to solve such problems through enhancing the physicochemical properties of anticancer agents. Using nanoparticles can develop diagnosis, targeted delivery and treatment of cancer. In this study, Graphene/Cobalt oxide /Neodymium oxide nanocomposites (G- Co3O4 / Nd2O3 NCs) were prepared and their anti-cancerous activity were assessed.

Method & material: Cobalt oxide /Neodymium oxide nanocomposites (Co3O4/Nd2O3 NCs) and G- Co3O4 / Nd2O3 NCs were prepared by the precipitation method. In order to characterize the physicochemical properties of the samples, Fourier transform infrared Spectrometer, diffuse reflectance spectroscopy, field emission transmission electron microscopy, X-ray diffraction, dynamic light scattering, vibrating sample magnetometer and transmission electron microscope were used. Anticancer activity of prepared G- Co3O4 / Nd2O3 NCs and Co3O4 / Nd2O3 NCs samples at different concentrations were assessed in MDA_MB231 breast cancer cells.

Result: The average size of the prepared G- Co3O4 / Nd2O3 NCs and Co3O4 / Nd2O3 NCs were 425.5 nm and 177.5 nm with a zeta potential of -17.0 mV and -19.6 mV, respectively. The half maximal inhibitory concentration (IC50) of the G- Co3O4 / Nd2O3 NCs and Co3O4 / Nd2O3 NCs against MDA_MB231 cancer cells after 24 hours were 6.303 and 23.23, respectively. Cytotoxic effect of G- Co3O4 / Nd2O3 NCs at concentration of 100µM was significantly increased compared with Co3O4 / Nd2O3 NCs and control group (P 0.05). G- Co3O4 / Nd2O3 NCs have induced more reactive oxygen species (ROS) generation in cancer cells, compared with Co3O4 / Nd2O3 NCs and control group. Based on the results of mitochondrial membrane potential (MMP) test, both G- Co3O4 / Nd2O3 NCs and Co3O4 / Nd2O3 NCs at concentration of 100µM showed a significant increase in collapse of MMP, compared with cisplatin.

Conclusion: Our results showed that exposure to G- Co3O4 / Nd2O3 NCs G- Co3O4 / Nd2O3 NCs have significantly increased cytotoxicity of cancer cells by reducing the cell viability through increasing ROS levels and collapsing of MPP, leading induction of cancer cells' apoptosis and their death. The results of our study showed that G- Co3O4 / Nd2O3 NCs can be a promising candidate for improving the selectivity and anticancer activity of nanocomposites.

G-1252

Investigating and predicting the effect of sleep duration on the work quality of shift workers using machine learning and data visualization

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Introduction: Sleep quality is one of the important issues of occupational health and safety, and people with low sleep quality face a decrease in work quality, which is accompanied by serious disorders among shift workers. This study was conducted to investigate and predict the effect of sleep duration on the work quality of shift workers using machine learning and data visualization approaches.

Method & material: This study was conducted in 2021 with the code of ethics IR.QUMS.REC.1400.443. In this study, data related to sleep quality and impairment in job performance of 82 rotating shift workers in one of the food industries were collected using the Pittsburgh Sleep Quality Questionnaire (PSQI). First, the data were cleaned through data analysis and preparations were made for data visualization. Then, by drawing dot charts (Scatter Plots), the dispersion pattern was obtained using the software Orange.

Result: According to the results obtained from the normal distribution chart, 2.35% of people sleep (3-4 hours), 4.71% (4-5 hours), 14.12% (5-6 hours), 41.18% (6-7 hours), 14.12% (8-7 hours), 20% (9-8 hours) and 3.53% people (10-9 hours). Also, the results showed that the highest percentage of work disorders is among people with 6 to 7 hours of sleep. According to the algorithm obtained from the data of this research, the average time for each person to fall asleep is 15 minutes, so the best sleeping time is 9 hours and 15 minutes and 7 hours and 45 minutes.

Conclusion: According to the results of the study, it takes 90 minutes from the moment of sleep to the time when the sleep becomes heavy and reaches the light stage again. Therefore, the best time to wake up from sleep is in the lightest stage, and also the cause of people's fatigue and work disorder is due to inappropriate sleeping time and waking up in an inappropriate phase of sleep, which is mentioned in this study.

G-1255

Investigating the state of mental health and access to mental health services among people with disabilities in Kurdistan province in 2022

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Introduction: One of the common problems among people with disabilities is mental disorders. This study, for the first time in Iran, examined the prevalence of suspected mental disorders among people with disabilities.

Method & material: This was a descriptive-analytical study that was conducted cross-sectionally on adults with physical and sensory disabilities (vision, hearing and speech) in Sanandaj city in 2023. The sample size was determined to be 613 people and they were selected by simple random method. The data collection tool was the General Health Questionnaire-28. In this study, multiple logistic regression was used to identify predictors of having mental disorders, and concentration index was used to examine its inequality distribution. Data were analyzed using STATA software.

Result: The prevalence of suspected mental disorders was 56.7% (344 people) and its prevalence based on the severity of the disorder was 29.7% mild, 16.6% moderate and 10.4% severe. Variables being female (AOR:1.55; 95% CI: 1.05-2.29) 55%, being under 30 years old (AOR:3.46; 95% CI: 1.55-5.76), being unemployed (AOR:4.10; 95% CI:2.74) -6.14), not having supplementary insurance (AOR:2.78; 95% CI: 1.49-5.20) and belonging to the poorest economic class (AOR:4.23; 95% CI: 2.34-7.62) significantly increased the chance of having symptoms of mental disorders . Prevalence of suspicion for mental disorders had uneven distribution and was significantly concentrated among people with lower economic status (C= -0.395, 95% CI: -0.480 to -0.309).

Conclusion: A high percentage of people with disabilities were suspected of having mental disorders, and the prevalence was disproportionately concentrated among poorer people. It is suggested to pay special attention to the prevention and screening of mental health among people with disabilities and guarantee their access to mental health services in health policies.

G-1260

Silymarin exerts the anti-hepatocellular carcinoma effects via Wnt, apoptosis, autophagy and angiogenesis pathways

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Introduction: Liver cancer is a leading cause of mortality in the world. Despite several initiatives and successes in treatment techniques, only a little improvement has been attained. In order to control this cancer, new therapeutic strategies are therefore required. Here, we evaluated the effects of doxorubicin and the milk thistle plant phytochemical silymarin on liver cancer through apoptosis, autophagy, and Wnt signaling. Silymarin both alone and together with doxorubicin was administered to induce cytotoxicity in the H22 cell line.

Method & material: The genes involved in autophagy, Wnt signaling, and apoptosis were evaluated using Western blot and quantitative reverse-transcriptase polymerase chain reaction (qRT-PCR) methods.

Result: Doxorubicin and silymarin both individually and combined dramatically slowed down H22 cells growth. Additionally, there was a significant drop in the Bax protein and a considerable rise in the caspase 8 and Bcl-2 proteins. Beclin 1, LC3-I, and LC3-II were all shown to be significantly elevated. Additionally, the expression of genes connected to the Wnt pathway, such as cyclin D1, beta-catenin, ZEB1, and Twist, decreased significantly. The levels of AMPK were highest in Silymarin with Doxorubicin alone and in combination, whereas VASP, VEGF, and HIF-1a were lowest.

Conclusion: Silymarin may enhance anti-tumor effects of doxorubicin through modulating angiogenesis, autophagy, and apoptosis, in-vitro.

G-1270

Gender differences and age–related Gray Matter volume and white changes of the human brain in Iranian Population: A diffusion tensor magnetic resonance imaging study

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Introduction: Cerebral white (WM) and grey matter (GM) undergoes various changes with normal aging. Determination of GM volume and microstructural properties of WM in various ethnic groups has special values.

Method & material: This study investigated the association between age, gender, Body mass index (BMI), and the global GM volume and WM metrics. Global GM and regional fractional anisotropy (FA), mean diffusivity (MD), axial diffusivity (AD), radial diffusivity (RD) was assessed in 140 healthy adults (20 to 70 years old) by combining voxel-based morphometry (VBM) and tract-based spatial statistics (TBSS).

Results: This study found widespread reductions in GM volume from middle age onwards but earlier reductions in GM were detected in frontal cortex. Widespread age-related deterioration in WM microstructure was detected from young adulthood onwards. The regional analysis showed that the anterior corpus callosum, the bilateral anterior and posterior internal capsule, and the posterior periventricular regions had the most significant age-related FA decrease. On the other hand, the FA in the temporal and occipital regions was not correlated with age. Gender differences in precentral, cingulate, and anterior temporal white matter areas were also found and showed sexual dimorphism. However, in contrast to males, females overall had a significantly lower FA in the right deep temporal regions. Obese participants had less total GM volume than lean and overweight participants. Obese participants had lower total WM volume than overweight participants. BMI correlated with higher WM volumes in the middle temporal gyrus, fusiform gyrus, Para hippocampal gyrus, Rolandic operculum and dorsal striatum.

Conclusion: WM microstructure can be detected more sensitively using DTI-based measures than conventional MR imaging. These findings provide evidence that obesity is associated with smaller gray matter volumes. The observed patterns of age-related changes may have important implications for future studies on chronic neurological conditions that show an impact of age on disease onset and progression.

G-1278

Investigating the role of clinical decision support systems in reducing medical errors

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Introduction: In information technology, systems called Clinical Decision Support Systems (CDSS) have been developed, which can help therapists by providing information such as standards, counseling-oriented guidance, procedures and protocols, rules, and suggestions for care. and thereby reduce medical errors. The aim of the present study is to investigate the role of clinical decision support systems in reducing medical errors from the perspective of doctors and nurses in the teaching and therapeutic hospitals of Ferdows city.

Method & material: The current study is a descriptive-cross-sectional study conducted in Ferdows city in 2021 in two teaching and therapeutic hospitals. In this study, the census method was randomly available and the research community was considered as the research sample. The inclusion criteria were doctors and nurses working in Ferdows hospitals who were willing to participate in completing the questionnaires and were somewhat familiar with health information systems. Exclusion criteria included other treatment staff other than doctors and nurses - such as pharmacists, laboratory technicians, operating rooms, etc. Also, doctors and nurses who were not willing to cooperate or did not have enough information about health information systems, or could not answer the questions of the questionnaire were excluded from the study process. The data collection tool was the questionnaire of Ariyai et al. After collecting the questionnaires, the data were analyzed using descriptive statistics methods in SPSS software version 19.

Result: A total of 42 medical personnel were included in the study. Doctors benefit from the decision support system by reducing the risk of severe allergic reactions and drug interactions (60%), quickly accessing patient records (50%), and registering orders electronically (30%). From the point of view of nurses, eliminating problems related to doctors' illegible handwriting (25%), reducing the chance of forgetting to repeat the test or radiology (18.8%), quick access to updated information during work (12.5%), and reducing the possibility of embolism (9.4%) are the advantages of clinical decision support systems.

Conclusion: Considering the importance of developing these systems in hospitals as well as measuring the readiness of medical staff to accept decision support systems, it is suggested to provide the necessary training in this field.

G-1283

Evaluation of the Pharmacokinetic parameters of HB5 aptamer modified Imatinib liposomes

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Introduction: Breast cancer is one of the top five causes of death in women globally. Current treatment options for various breast cancer subtypes are based on the molecular categorization of the malignant cells. Although imatinib is expected to inhibit breast cancer, its therapeutic effectiveness is limited by off-target cardiotoxicity. Lipid nanoparticles (liposomes and SLNs) have great potential for the delivery of anti-cancer agents due to their rapid uptake, biodegradability. Aptamers can to improve the therapeutic potential of pharmaceuticals by serving as a targeted delivery vehicle. This research aimed to design and formulate HB5 aptamer modified liposomes loaded with IMT and evaluate in vitro characteristics such as particle size, polydispersity index, zeta potential, encapsulation performance, release performance, stability, and cytotoxicity. and investigating the pharmacokinetic parameters of the prepared formulations in Sprague–Dawley SD rats .

Method & material: HB5 Aptamer modified and liposomes were prepared, evaluated and the Pharmacokinetic parameters of each formulation has been studied.

Result: The HB5 modified liposomes showed an average size of 101.6 ± 50.80 nm with a zeta potential value of -19.66 ± 0.55 mV, a PDI of 0.250 and 81.96% ± 0.98% drug entrapment efficiency, meanwhile displayed a sustained release profile Following intravenous administration to rats, APT-IM-LIP not only extended the half-life of IMT, but also prolonged retention of IMT compared with plain IMT after intravenous administration.

Conclusion: In the present study, IMT-loaded liposomes (IM-LPs) were successfully developed with a narrow size distribution, high entrapment efficacy and a sustained release profile. Following intravenous administration to rats, IMT-LPs not only extended the half-life of IMT, but also prolonged retention of IMT. In summary, liposomes may be promising carriers for active delivery of IMT to delay the drug release and improve patient compliance for the treatment of Breast cancer.

G-1287

Comparison of the effect of virtual reality with two approaches of distraction and educational film on anxiety and hemodynamic parameters in patients undergoing cardiac angiography

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Introduction: Cardiovascular disease, a chronic illness, has become increasingly prevalent in the 21st century. Coronary angiography is the most definitive diagnostic method for cardiovascular disease but is invasive and often leads to complications such as anxiety and stress. The current study aimed to compare the effect of virtual reality with two approaches, distraction and educational videos, on anxiety and hemodynamic parameters in patients undergoing cardiac angiography due to the limited information available and the inconsistent results of studies on the effectiveness of such interventions.

Method & material: A clinical trial study was conducted on 90 patients referred to Razi Hospital's heart clinic in Birjand, who were candidates for angiography in 2021. Patients were randomly assigned via simple (blocked) randomization into three groups: educational film, distraction film and control. Anxiety levels (measured using the Spielberger questionnaire) and hemodynamic factors were measured one night before angiography. The educational film group watched a 3D educational film about the angiography process, while the distraction film group watched 3D films with entertaining content and nature documentaries. Patients in the control group received only usual training from ward staff. One hour before the angiography, anxiety level and hemodynamic factors were re-evaluated. SPSS software version 18 was used to analyze the data, employing Mann-Whitney, Kruskal-Wallis, and Wilcoxon statistical tests at a significance level less than 0.05.

Result: There was no significant difference among the mean age and gender of patients in the three groups (P 0.05). The Mind Distraction group had the lowest levels of overt and covert anxiety and systolic blood pressure after intervention, and the level of overt and covert anxiety after intervention was significantly lower than before intervention(p0.05). The Educational video group had a significantly lower respiratory rate after the intervention(p0.05). The Mind Distraction group showed significant overt and covert stress changes(p0.05), while the Educational video group recorded significant changes in respiratory rate(p0.05).

Conclusion: The study suggests that virtual reality approaches such as educational and distraction videos can help reduce anxiety levels in patients undergoing angiography. These approaches can be useful in clinical situations where anxiety is prevalent.

G-1288

Investigating the association between diabetes mellitus with treatment failure and mortality in smear–positive TB patients: a case–control study

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Introduction: Tuberculosis (TB) is a significant public health concern in developing countries and co-occurs frequently with diabetes. This study investigates the relationship between diabetes and treatment outcomes in individuals with TB.

Method & material: This case-control study assessed 908 patients with TB in Iran from 2017 to 2019. Patients who experienced treatment failure or death were placed in the case group, while those who successfully completed treatment were assigned to the control group. data were analyzed using SPSS 18 statistical software at a significance level less than 0.05.

Result: Age, gender distribution, and education level varied significantly between the two groups. Diabetes was also significantly associated with treatment failure and death in various subgroups based on nationality, gender, education level, imprisonment, addiction, HIV infection, adherence to prescribed medication, employment status, place of residence, and disease severity. The crude effect of diabetes on treatment failure and death was 2.24, which increased to 2.99 after adjusting for other variables.

Conclusion: These findings indicate that diabetes has an unfavorable impact on TB treatment outcomes, with individuals with diabetes showing a higher risk of treatment failure and death than those without diabetes. As a result, screening infected individuals for diabetes and providing specialized care and treatment interventions for the diabetic group can help improve treatment outcomes.

G-1364

Investigating the role of AhR–Notch signaling pathways in the induction of toxicity with arsenic trioxide (ATO) in breast cancer cell lines

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Introduction: Breast cancer is known as one of the most common cancers after lung cancer. Studieshave shown that the activation of AHR can play an important role in breast cancer,as the increase in AHR activity increases the amount ofCYP1A1,CYP1B1, and IDO1enzymes in the celland the increase ofthese enzymes contributes to the cancerous growth of normal cells.do The Notch messenger system in the physiological state plays an important role in cell differentiationand any disturbance in the Notch messenger system can cause the differentiation of normal cells into cancer cells.Despite the progress made in the treatment of the disease,unfortunately,there is still no proper prognosis. Accordingly,there is a need to use more effective treatment methods.Arsenic trioxide,is one of the old drugs and has been approved by the FDA for the treatment of APL due to its low toxicity and high efficiency. The aim of this study is to investigate the role of AHR/Notch signaling pathwayin breast cancercells.

Method & material: This study is an experimental study that was conducted on breast cancer cells including MDA-MB-231 and MCF-7. Statistical analysis of data was done using Prism GraphPad version 8 software. The data are expressed as mean ± SEM and analysis of variance (ANOVA) was used to compare the means. One-way ANOVA and Tukey's supplementary test were used to check and determine the difference between the means and the significance of the analysis results. A significance level of p value0.05 is considered.

Result: The value of IC50 in the MDA-MB-231 cell line has decreased in a dose-dependent and time-independent manner, and in the MCF-7 cell line, it has decreased in a dose-dependent and time-dependentmanner. Theamountof mitochondrial membrane potential drop with increasing concentration Arsenic trioxide increases and in the presence of FICZ and DAPT, it increased significantly compared to other groups, but in the presence of CH223191, the drop in mitochondrial membrane potential was greatly reduced.By increasing the concentration of arsenic trioxide in both MCF-7 and Mda-mb cell lines, the amount of ROS produced also increased. In the presence of FICZ and DAPT, there was a significant increase compared to other groups, but in the presence of CH223191, the amount of ROS produced was greatly reduced. In the study of cell migration in both cell lines, the rate of cell migration in the control group was higher than in other groups.

Conclusion: Overall,theobtained results showthat arsenic trioxide,has shown favorable anticancereffects inMDA-MB-231,and MCF-7strains and can be used as a promising drug in cancer.Sine used it.

G-1374

Evaluation of the effect of AML-derived exosomes on the expression of the genes involved in JAK/STAT signaling pathway (JAK-2, STAT-3, and STAT-5) in human bone marrow mesenchymal stromal cells

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Introduction: Acute myeloid leukemia is a clonal disorder characterized by uncontrolled expansion and differentiation arrest of myeloid cells. While a wide range of therapeutic approaches has been developed for this neoplasm, therapy resistance and relapse are the main obstacles. Mesenchymal stromal cells play a crucial role in leukemia growth and inducing anti-apoptotic signals resulting in treatment failures of AML. JAK/STAT is a pathway whose hyper-activation is associated with unlimited proliferation of AML. The interaction between MSCs and AML cells occurs either through direct cell to cell contact or indirectly through extracellular vesicles. Exosomes are membrane-bound EVs that transfer various cargoes and have important roles in pathophysiological conditions. In AML, leukemia-derived Exosomes transform MSCs to a microenvironment that promotes chemo-resistance and leukemia survival. In this study, we examined the influence of AML-derived exosomes on the expression of the genes related to JAK/STAT signaling, as a favoring leukemia pathway.

Method & material: Exosomes were isolated from HL-60 cell line using Exosome isolation kit. The isolated particles were characterized by TEM (Transmission Electron Microscopy), the DLS (Dynamic Light Scattering) technique and flow cytometry. Exosomal Protein content was assessed using BCA protein assay in order to determine the concentration of exosomes. Then, MSCs were co-cultured with different concentrations of AML-exosomes. MTT and flow cytometry were used to achieve our data. Gene expression analysis was also performed by qRT-PCR.

Result: Isolated exosomes were mostly positive for CD9,CD63, and CD81. According to the DLS results, isolated particles' mean size range was between 70-100 nm. Our results showed that the exposure to 50 µg/mL of AML-exosomes increased the metabolic activity of MSCs. Additionally, qRT-PCR results demonstrated that the AML-exosomes altered the expression of JAK-2, STAT-3, and STAT-5 in MSCs.

Conclusion: Because the JAK/STAT signaling has contributed to proliferation and survival of leukemic cells, our findings suggest that AML-exosomes induce MSCs to activate this pathway, which may prevent AML cells from apoptosis and ultimately result in chemo-resistance and relapse.

G-1384

The dietary pattern in relation to non-alcoholic fatty liver; an umbrella review of meta-analyses of observational studies and intervention trials

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Introduction: One of the most important causes of chronic liver disorders is Non-alcoholic fatty liver disease (NAFLD). Recently, many studies have investigated various dietary patterns for NAFLD, but it is not clear which pattern has the best effect in improving this disease. Therefore, the purpose of this umbrella is to summarize the evidence available in meta-analyses on the relationship between various dietary patterns and NAFLD.

Method & material: Two independent researchers identified published meta-analyses of interventional and observational studies that investigated the relationship between "dietary patterns" and "NAFLD" by searching electronic databases (PubMed, Scopus, Web of sciences, and google scholar) until March 2023 without any language, time, or place restrictions. The inclusion criteria was systematic reviews and meta-analysis studies that 1) with random-effects size with confidence interval (CI) 95%); 2) on adults; and 3) include the dietary pattern as an exposure and NAFLD was considered as an outcome of the study. Data extraction from these studies performed independently by two colleagues using the checklist was designed in an Excel file format. A Measurement Tool to Assess Systematic Reviews 2 was used to evaluate the quality of the studies. The pooled effect size of dietary pattern NAFLD was evaluated using the standard mean difference (SMD) with a CI 95% using Stata software version 11.2 (Stata Crop, College Station, TX).

Result: Fourteen meta-analyses met the inclusion criteria. Among the evaluated dietary patterns, the calorie-restricted diet seemed to be the best diet because it had a significant effect on all NAFLD-related outcomes including hepatic steatosis (SMD: -5.65; CI 95%: -7.46,-3.54, I2: 0), fatty liver index (SMD: -2.54; CI 95%: -4.54,-0.54), liver stiffness (SMD: -2.64; CI 95%: -4.6,-0.67, I2: 0) and liver enzymes including alanine transaminase (SMD: -4.24; CI 95%: -6.25,-2.25), aspartate aminotransferase (SMD: -1.46; CI 95%: -3.44,0.54).

Conclusion: The findings of our umbrella summarized for the first time meta-analyses that have been conducted in the field of dietary patterns and NAFLD, and showed that a calorie-restricted diet has the best effect in improving NAFLD-related outcomes. Therefore, our findings support calorie-restricted diet in improving NAFLD along with the treatment protocol of these patients.

G-1390

The Role of Blood Pressure in Non-maturation of Arteriovenous Fistulas of Diabetic Patients, North of Iran

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Introduction: The existence of reliable vascular access is affecting the efficiency of dialysis. Although Many studies have investigated the relationship between diabetes and vascular access survival, had not evaluated its relationship with fistula maturity. This study aims to investigate the duration of maturation of distal forearm arteriovenous fistulas in hemodialysis patients with diabetes.

Method & material: In this cross-sectional study, 90 patients were referred to Ayatollah Rouhani Hospital of Babol.The demographic characteristics, background disease, laboratory measurements and blood pressure of patients, information related to operation and insertion of the arteriovenous fistulas were filled. The patients were followed up at 1 week, 1 month, 2 months, and then monthly up to 6 months with fistula clinical examination in terms of Thrill. The data was analyzed by Chi-square tests, t.test and survival test methods such as the Kaplan-Meier method and Cox regression model in SPSS statistical software.

Result: Most of the patients, 41 cases (53.2%) were male. The hypertension 62(80.5%) and hyperlipidemia 25 (32.5%) were the most common background disease, respectively. Furthermore, it can be seen that there is a 3-day difference between the maturity of fistula in men and women, but this difference was not statistically significant (p0.005). The result showed that there is a reverse and significant correlation between pre-operative blood pressure (p= 0.013), during operation (p=0.004), post-operation (p=0.003) and one week (p=0.002), one month later (p=0.008) and two months after (p=0.333) with maturation time. The key point has an inverse effect on the prediction, so with increasing the mean pressure (except in the period of two months after surgery), the longer duration of maturation has been seen.

Conclusion: There was a significant difference in mean blood pressure before, after, and during operation with the duration of fistula maturation. These times in addition to correlation, can predict value of the time of fistula maturation. Further studies with multicenter and large samples are suggested.

G-1397

Exploring the Anticancer Potential of Chrysin–Loaded Electrospun Nanofibers for Preventing Local Recurrence of Breast Cancer

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Introduction: Local or regional recurrence of breast cancer occurs at an average rate of 9% within 5-10 years after lumpectomy, emphasizing the essential need to develop efficacious strategies to effectively eliminate residual tumor cells and impede local relapse of breast cancer. Recent studies have suggested the promising utility of drug-encapsulated nanofibers (NFs) in reducing the risk of local cancer recurrence after surgical resection. Consequently, to decrease locoregional breast cancer recurrence, the present study aimed to assess the in vitro anticancer potency of electrospun NFs loaded with Chrysin (Chr) against T47D breast cancer cells.

Method & material: The synthesis of poly (lactic-co-glycolic acid) and polyethylene glycol (PLGA/PEG) copolymers were achieved through ring-opening polymerization, while the molecular weight of the copolymer was determined using the GPC method. Different ratios of Chr were added into the PLGA/PEG solution, which was then electrospun into NFs. The fabricated Chr-loaded NFs were then characterized via FE-SEM, FTIR, and Universal Testing Machine. The drug content within the NFs was quantified using ICP-MS and HPLC techniques. Subsequently, the drug release profile was evaluated at pH 7.4 via UV-visible spectrophotometry. Cytotoxic effects on T47D cells treated with Chr-loaded NFs were determined through MTT assay, while alterations in cell morphology were assessed using FE-SEM. Finally, the in vitro efficacy of drug-loaded PLGA/PEG NFs in modulating the expression of apoptotic genes (bax, bcl-2, caspase-3, and caspase-7), Cyclin D1, p53, and hTERT were analyzed via real-time PCR.

Result: The FE-SEM analysis revealed that the randomly oriented bead-free Chr-loaded PLGA/PEG fibers exhibited enhanced interconnectivity between the fibers, resulting in an increased average diameter of approximately 450 nm. Moreover, the loading of Chr in the NFs led to improved mechanical properties compared to the neat PLGA-PEG NFs. The in vitro release study demonstrated a sustained drug release pattern from the Chr-loaded NFs. In terms of MTT assay, the 10% (wt:wt%) Chr-loaded PLGA/PEG NFs exhibited more pronounced antiproliferative activity compared to free Chr. Furthermore, the 10% (wt:wt%) Chr-loaded PLGA/PEG NFs exhibited significant alterations in the mRNA levels of bax, bcl-2, p53, Cyclin D1, caspase-3, caspase-7, and hTERT genes, surpassing the effects observed with free Chr and the 5% (wt:wt%) Chr-loaded PLGA/PEG NFs (P 0.05).

Conclusion: In conclusion, the Chr-loaded NFs exhibited superior efficacy in inhibiting T47D breast cancer cells in vitro compared to free Chr. Consequently, the fabricated drug-encapsulated NFs hold significant potential as a safe and viable approach for breast cancer relapse following surgical interventions.

G-1401

Preparation and in vitro evaluation of self-nanoemulsifing Sustained release pellets of gliclazide

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Introduction: Gliclazide belongs to biopharmaceutical classification system (BCS) class II drugs, which is poorly water soluble. The aim of this study was to design and formulate self-nanoemulsifying sustained - release pellets of gliclazide in order to improve its low solubility and bioavailability while avoiding the limitations of liquid Self-nanoemulsifying drug delivery system (SNEDDS).

Method & material: At first, primary screening studies was done in order to select the components of (SNEDDS). Liquid SNEDDS formulations were designed and prepared using different percentages of oil, surfactant and cosurfactant. Physicochemical characteristics of SNEDDS formulations including droplet size, poly dispersity index, zeta potential and transmittance were evaluated. A Response surface experimental design was applied to explore the effect of variables (amount of oil, surfactant and cosurfactant) on responses and the optimization process predicts the amount of each component for yielding an optimized formulation. The physical stability of SNEDDS formulations was evaluated in different conditions. The optimized liquid formulaons (L-SNEDDS) was converted to solid formulations (S-SNEDDS) as pellets. SNEDDS pellets were evaluated for their size, PDI and transmittance after dispersion in aqueous mediums, and characterized using scanning electron microscopy. Release behavior gliclazide from liquid SNEDDS formulations and three different SNEDDS pellets were determined and compared with the release of free drug.

Result: The optimized composition of liquid gliclazide SNEDDS was 15.38% oleic acid, 61.53% tween 80 and 23.07% PEG 400. The mean hydrodynamic diameter, polydispersity index and zeta potential of optimized liquid SNEDDS formulation were about 171 nm, 0.278 and -27 mV. SEM images showed that the prepared pellets have a spherical shape with a diameter of 2 mm. In vitro dissolution of SNEDDS pellets exhibited slower drug release compared to optimized liquid SNEDDS. All of SNEDDS formulations including the liquid one and pellets showed a significant increase in gliclazide dissolution compared to plain drug. Increasing the amount of hydroxyl propyl methyl cellulose in the SNEDDS pellets were resulted in the slower release of drug.

Conclusion: Results of this study showed that gliclazide loaded L-SNEDDS and pellets can enhance the solubility and dissolution rate of this drug. The release of gliclazide from HPMC- containing SNEDDS pellets was found to be sustained. So SNEDDS pellets considered to be able to serve as a promising tool in sustaining the release of gliclazide while increasing its solubility.

G-1407

Investigation of frequency of pediatric drug hypersensivity admitted in Akbar and Ghaem hospital in 10 years

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Introduction: Adverse drug reactions are prevalent events in various specialized fields of healthcare, significantly impacting hospitalization rates, morbidity, mortality, and imposing substantial financial burdens. This study, therefore, sets out to investigate the frequency and characteristics of drug hypersensitivity leading to hospitalization in the pediatric departments of Akbar and Qaim hospitals over 10 years.

Method & material: In this retrospective cross-sectional descriptive study, the files of Akbar and Qaim hospitals registered in the Health Information System between 2013 and 2022 were systematically investigated. A total of 189 patient files were included in the analysis. Clinical documents were reviewed, and information was collected in a three-part checklist. The checklist comprised demographic information, facilitating factors, and patient symptoms recorded at the time of the visit or during hospitalization. The obtained data were analyzed using the SPSS 26th version.

Result: The data from 189 patients were included. Among these patients, the most common diagnoses were urticaria in 58 (30.7%), drug fever and rash in 53 (28%), Stevens-Johnson syndrome in 22 (11.6%), and Dress syndrome in 19 (10.1%) individuals. The most prevalent symptoms reported by the patients included cutaneous manifestations, with urticaria observed in 53% of cases, followed by maculopapular rashes in 41%, erythroderma in 33%, and itching in 21%. Constitutional symptoms, such as fever, were reported by 37% of the patients. Respiratory, gastrointestinal, and ocular symptoms were less common, each accounting for less than 10% of the reported cases. In terms of the drugs causing sensitivity reactions, the most frequently implicated substances were phenobarbital in 62 cases (35.2%), carbamazepine in 30 cases (17%), antibiotics in 23 cases (12%), and lamotrigine in 20 cases (11.4%). Notably, 32 patients (17%) had a history of prior drug use without developing an allergic reaction.

Conclusion: This study has identified that most drug hypersensitivity reactions are associated with anticonvulsant medications. Consequently, it is crucial to implement restrictions on the inappropriate use of these drugs. To ensure the well-being of children, it is essential to prioritize anticonvulsant medications with fewer side effects. Parents should be adequately informed about the potential side effects of the prescribed drugs for their children and be aware of the appropriate actions to take when such side effects arise. Furthermore, comprehensive information regarding the optimum dosage, duration of use, and concurrent medications should be provided to minimize the risk of adverse reactions.

G-1417

The Maturation Time of Arterio-venous fistula in Chronic Kidney Disease Patients Under Antihypertensive Therapy regimes

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Introduction: Arterio-venous fistula (AVF) is the preferred type of vascular access in maintenance hemodialysis. Also, one of the limitations of this method is the need for maturation of AVF to use for efficient hemodialysis. Antihypertensive medications have been considered to affect AVF maturation in some studies. In this study, we investigated the rate and time of AVF maturation in patients with renal failure treated simultaneously with antihypertensive medications.

Method & material: We performed a prospective study for all patients referred to the Vascular Surgery Department of Ayatollah Rouhani Hospital for AVF creation. Finally, 73 patients were enrolled in this study. Demographic information, medication history, underlying diseases, and information about AVF surgery, were recorded in the demographic-clinical questionnaire. After the AVF insertion surgery, the patients were followed up and visited for one week, one month, two months, and then monthly up to 6 months after surgery, if the AVF was not mature, and the examination results were recorded in the questionnaire. If the maturation of the AVF was confirmed by clinical examination, the patient was referred to the dialysis unit for hemodialysis, and after successful hemodialysis, the time of AVF maturation was recorded.

Result: Of the 73 patients enrolled, 38 cases (52.1%) were male and 35 cases (47.9%) were female. The average age of the patients was 53.96±13.65 years. Most of the patients had a history of diabetes (50.7%), hypertension (91.8%), and hyperlipidemia (45.2%). Out of 73 patients studied, 64 patients reached fistula maturity during the study, and 9 patients failed in initial fistula maturation. In this study, the rate of AVF maturation was 64 cases (87.7%), and fistula maturation time was 71.95±32.86 days on average. Having diabetes in patients has been associated with the results of AVF maturation rate (P=0.028). Also, there was a significant association between mean intraoperative blood pressure and AVF maturation time (P=0.033). The use of antihypertensive medications did not affect the results and time of AVF maturation(p0.05).

Conclusion: There was no relationship between the use of antihypertensive medications and AVF maturation rate and time. The AVF maturation rate in diabetic patients was lower. In patients had higher blood pressure during surgery, the AVF maturation time was shorter, and they reached maturation earlier. Due to the significant role of blood pressure in fistula maturation, the necessity of antihypertensive drug modification in the process of maturation is suggested.

G-1422

Evaluation of Cytokeratin-7 and Cytokeratin-19 Expression Relationship with Gleason Score in Prostatic Adenocarcinoma

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Introduction: Prostatic adenocarcinoma (PAC) is one of the most common tumors worldwide. Immunohistochemical expression of cytokeratins has been evaluated in the diagnosis and prognosis of tumors. The aim of the present study is the evaluation of Cytokeratin-7 (Ck-7) and Cytokeratin-19 (Ck-19) expression and its relationship with Gleason score in patients with PAC.

Method & material: In this cross-sectional study, 78 samples from 78 patients with PAC referred to Mostafa Khomeini Hospital were gathered. Samples were immunohistochemically stained by Ck-7 and Ck-19 markers. The percentage of each marker in tumor cells was determined, and its relationship with Gleason scores and Gleason grade groups was analysed by SPSS version 24.

Result: The expression of Ck-7 and Ck-19 were seen in 37.2% and 82.1% of samples, respectively. The mean of Ck-7 expression in tumor cells was 4.98%±7.19 (ranged 0 to 26%), while the mean of Ck-19 expression was 41.02%±23.36 (ranged 0 to 78%). There was no relationship between Ck-7 expression with Gleason scores and Gleason grade groups. However, Ck-19 expression was increased in higher Gleason scores and Gleason grade groups (P0.001). No relationship was found between age and Ck-7 (P=0.309) and Ck-19 (P=0.375).

Conclusion: The Ck-7 expression in PAC samples is weak and focal and had no relationship with the Gleason scores and Gleason grade groups. However, Ck-19 expression in PAC was high and was associated with tumor dedifferentiation of samples. There was no relationship between the expression of both markers with the patient's age.

G-1439

Effects of Psychological Interventions on Pain, Anxiety in Patients Stroke Admitted to Intensive Care Units: A Parallel Randomized Clinical Trial

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Introduction: Pain, a persistent problem in stroke patients, adversely affects outcomes. Despite recommendations, no evidence-based nonpharmacological approaches for pain and anxiety treatment in stroke patients have been developed. To investigate the effects of a multimodal integrative intervention on the incidence of pain and on secondary outcomes: intensity of pain, hemodynamic indices (systolic and mean arterial pressure, heart rate) and anxiety.

Method & material: In this parallel randomized clinical trial study, 105 stroke patients who meet the inclusion criteria were assessed and assigned into intervention and control groups using block randomization. The intervention included relaxation, guided imagery, moderate pressure massage, and listening to music. The primary outcome was incidence of pain (score on Critical Care Pain Observation Tool 2). Other outcomes included pain ratings, hemodynamic measurements, and anxiety. Data were analyzed using descriptive and inferential statistics. The Kolmogorov-Smirnov test was used to normality of the distribution of data. Demographic data were compared using independent sample t test, Chi-square, and Fisher's exact tests in two study groups. Furthermore, Independent sample t test was conducted to compare the psychology and hemodynamic measures in study groups before and after the intervention. All analyses were performed using the SPSS, version 22, software (IBM SPSS).

Result: There was no significant difference between two study groups (P 0.05). The mean age of the participants was 60.68 (11.48) years old. The body mass index (BMI) in the participants was 26.6(3.34). Based on the results of the paired t-test, we observed a statically significant change in the mean systolic BP (P0.001), diastolic BP (P=0.006), Anxiety level (P=0.026), pain (P=0.006) and CPOT (P=0.006) scores after the intervention in the intervention group. However, we observed no significant changes in the control group, before and after the intervention (P 0.05). Moreover according to the findings of the independents sample t test, There were no significant differences in all variables under study in two groups before the intervention (P 0.05). However, a significant difference was observed in the mean of systolic BP (P0.001), diastolic BP (P=0.006), heart rate (P0.001), Anxiety level (P0.001), pain (P0.001) scores in two groups after the intervention

Conclusion: A multimodal integrative intervention may be effective in decreasing pain and improving pain related outcomes in stroke patients.

G-1444

Body Mass Index Association with COVID-19 Outcome in a Pediatric Tertiary Referral Hospital of Iran

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Introduction: One of the challenging risk factors for severe COVID-19 infection is obesity and Body Mass Index (BMI). In this study we have assessed BMI association with outcomes in hospitalized pediatric cases of COVID-19 in Iran.

Method & material: This retrospective cross-sectional study was performed in the biggest referral pediatric hospital of Tehran from March 7th to August 17th of 2020. All hospitalized children <18 years of age with laboratory confirmed COVID-19 were included into the study. In this study, we evaluated the association of BMI with COVID-19 outcomes (death, severity of clinical course, oxygen therapy, ICU admission, ventilator requirement) and secondary objectives was investigating the association of gender, underlying co-morbidity, and age of patients with COVID-19 outcomes. BMI >95 percentile, 85≤ BMI ≤ 95, and BMI<5 percentile were respectively considered as obesity, overweighting, and underweighting.

Result: In total, 189 confirmed pediatric cases of COVID-19 (0.1- 17 years) with mean age 6.4 (∓4.7) years were included. It was recorded that 185of the patients were obese, and 33were underweight. We found that BMI had no significant relation with COVID outcomes in pediatric cases but after subgrouping the participants, underlying co-morbidities and lower BMI in previously ill children were independently associated with poor clinical outcome of COVID-19. In addition, the previously ill children with higher BMI percentiles were at lower risk of ICU admission) and better clinical course of COVID-19 The BMI percentile has a significant direct relationship with age (Spearman correlation coefficient: 0.26, P value: <0.001). When we separated the children with underlying co-morbidity, the BMI percentile was significantly lower (P value<0.001) in comparison to the previously healthy children.

Conclusion: Based on our results, obesity is not related with COVID-19 outcomes in Iranian children, but after controlling cofounders' effect, underweighted children with underlying co-morbidities are more highly associated with poor prognosis of COVID-19.

G-1454

Investigation of the Role of Clinical Decision Support Systems in the Management of COVID-19: A Systematic Review

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Introduction: As the biggest threat to public health, COVID-19 has caused many problems to the people of the world for more than three years. With the spread of the COVID-19 epidemic, clinical decision support systems have been developed in the field of diagnosis, control and management, prediction, and treatment of this disease. The present study aims to investigate the role of clinical decision support systems (CDSSs) implemented in the management of COVID-19 disease.

Method & material: In this study, PRISMA guideline was used to review the studies. For this purpose, Web of Science, PubMed, and Scopus databases were searched to retrieve English articles. Searches were conducted without time limits until December 6, 2021. The search strategy included the terms Clinical decision support system and COVID-19 and their synonyms. Original and English-published studies that were implemented in the management of COVID-19 were included in the study and their characteristics were analyzed. Data analysis was done through the content analysis method.

Result: A total of 222 studies were retrieved. After removing duplicate and unrelated items based on the title, abstract, and full-text evaluation, 13 studies were finally included in the review. Investigations showed that the studies were conducted in China, America, France, Brazil, Russia, Belgium, Canada and one study internationally. Reviewed CDSSs were implemented and used in the field of diagnosis and treatment (30.76%), assessment of the severity of the risk of Covid-19 (30.76%), decision-making (15.38%), disease management (7.69%), monitoring and control (7.69%) and vaccination (7.69%). Two systems were in the form of decision aid and 11 systems were clinical decision support systems. The users of these systems included healthcare providers (30.76%), physicians (23.07%), nursing home residents and their families (7.69%), students (7.69%), patients with COVID-19 (7.69%), shared between physicians and patients (7.69%), shared between physicians and nurses (7.69%) and the general public (7.69%).

Conclusion: The review of studies showed that CDSSs are used in various fields for the management of COVID-19. Considering that these systems generally help healthcare providers to make the best possible decisions, therefore, it is very important to use these systems in the field of COVID-19 disease management due to the existence of different treatment methods.

G-1465

Does more knowledge result in more usage of herbal medicine? A comprehensive study among Iranian Medical and non-medical students

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Introduction: Herbal medicine (HM) is increasingly popular, with 80% of developing countries' populations relying on it and a projected $5 trillion market by 2050 (1-3). This study examines medical and non-medical students' attitudes, knowledge, and performance regarding HM.

Method & material: A cross-sectional study was conducted on a sample of randomly selected medical and non-medical students from all around Iran. Data was collected using an online questionnaire. An expert panel confirmed the validity, and internal consistency of the questionnaire was verified by Cronbach's alpha method. Statistical analysis was performed using SPSS 26.0 software with Chi-Square, Mann-Whitney, and Kruskal-Wallis tests due to the non-normal distribution of the data.

Result: The sample consisted of 412 students, 319 (77.4%) were females. People older than 29 years old reported significantly higher scores in preferring HM and believing in it. The main reasons for preferring HM were cheaper price (p0.001), better therapeutic effect (p 0.001), and fewer side effects (p0.001). However, the main reason for not preferring HM were not knowing how to use them and not being effective. 344 (82.9%) of students buy HM from grocery stores and only 104 (25.1%) buy from pharmacy. Nearly half of the respondents obtain information about HM from internet and social media. Students who obtained information from their relatives reported higher scores in that HM is safe (p=0.034) and has less side effects (p= 0.043). Non-medical students generally believe HM are safe and have fewer side effects (p= 0.004), and they use them more than other students do, but they have the least knowledge about

Conclusion: According to the study the main reason for not taking HM was, not knowing how to use them, the same in Faris El-Dahiyat et all. Study in South Korea (4), and as we mentioned most students in Iran gain information from internet and social media, however in another study from India, revealed that most people get information from their relatives (5). Therefore, it is a social responsibility, especially for pharmacists in consulting people about how to use HMs in families and online platforms, so, proper HM courses in medical students' curriculum can be helpful. Surprisingly it is obtained that non-medical students think they have more knowledge about HM in comparison to medical students (p= 0.004), as we know non-medical students do not have any academic classes about HM in university, so we call it illusion of knowledge.

G-1473

Investigation of Trichophyton mentagrophytes – Trichophyton interdigitale complex infections and their antifungal susceptibility patterns at Razi Hospital, Tehran, Iran, 2021–2022

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Introduction: Members of the Trichophyton mentagrophytes-Trichophyton interdigitale complex are the most common agents of dermatophytosis with considerable treatment failure. Despite their increasing trend in recent years, scarce data are available regarding their prevalence and susceptibility patterns in Tehran, Iran. Accordingly, this study was conducted to determine the prevalence and susceptibility pattern of these fungi in a tertiary referral dermatology center in Tehran.

Method & material: A cross-sectional study was conducted on 489 patients clinically suspected of fungal infections in Dermatology Clinic at Razi Hospital, Tehran, Iran, between July 2021 and May 2022. For definitive diagnosis of the diseases, the patients were subjected to mycological investigations including direct microscopic examination and culture. Trichophyton mentagrophytes-Trichophyton interdigitale complex isolates were selected based on their morphological features and were definitely identified by sequence analysis of ITS-rDNA region. Furthermore, in vitro antifungal susceptibility testing for griseofulvin, itraconazole and terbinafine was evaluated according to the Clinical and Laboratory Standards Institute M38 third edition guideline. Associations between age and sex with species of dermatophyte were examined by Chi-square test in SPSS version 22. P-values less than 0.05 were considered statistically significant.

Result: Dermatophytosis was confirmed in 30 out of 489 (6.13%) patients, of whom, 16 (53.33%) were due to Trichophyton mentagrophytes-Trichophyton interdigitale complex. The female:male ratio was 1:1 and the patients were within an age range of 24–67 years (mean±SD 37±13 years). According to the results of molecular methods, 9 (56 %) and 7 (43%) of the 16 isolates were identified as Trichophyton mentagrophytes and Trichophyton interdigitale, respectively. Based on the results of antifungal susceptibility testing, itraconazole had the lowest geometric mean minimum inhibitory concentration (MIC) against both Trichophyton mentagrophytes (0.03 µg/mL) and Trichophyton interdigitale (0.02 µg/mL) followed by terbinafine and griseofulvin. Among the 16 isolates, 2 (12.5%) Trichophyton mentagrophytes isolates had MIC values above the upper limit of the wild-type for terbinafine. Based on the statistical analysis, there was no association between the age or gender of the patients with the species of dermatophyte (p 0.05).

Conclusion: The findings of the present study showed that Trichophyton mentagrophytes-Trichophyton interdigitale complex, with the dominance of Trichophyton mentagrophytes, cause more than half of dermatophytosis cases among patients referring to Razi hospital, Tehran, Iran. Furthermore, considering the two terbinafine-non wild type Trichophyton mentagrophytes isolates which could result in treatment failure, antifungal susceptibility testing prior to treatment seems necessary.

G-1491

COVID-19 infection following influenza vaccine injection and its complications among nurses working in educational-medical hospitals of Ardabil in 2020

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Introduction: Health care workers are one of the groups at risk of influenza. Currently, influenza vaccination is very important more than ever before. Influenza is evolutionarily similar to SARS-CoV-2, and they have some common epitopes and mechanisms. Because of their similar symptoms and treatment methods, reducing the severity of COVID 19 disease by influenza vaccination seems possible. Therefore, the aim of this study is to investigate the relationship between influenza vaccination and COVID 19 infection among clinical nurses.

Method & material: This study was conducted as a case-control study. The case group included 139 nurses working in Ardabil hospitals who had received the flu vaccine in September or October, and the control group included 140 randomly selected nurses who has not been vaccinated. Inclusion criteria included having at least six months of clinical experience before receiving the influenza vaccine, and exclusion criteria were: acute disease during the study (excluding COVID-19), having less than six months of work experience after receiving the vaccine at the clinic, and receiving COVID 19 vaccine during the study. A total of 279 people were included in the study. The data collection tool in this study was a three part questionnaire. The first part included the demographic information, the second part included questions about influenza vaccine injection and its complications, and the third part was related to COVID 19 infection and its complications.

Result: The average age of the control group was 35.14 years and for the case group was 33.57 years. The majority of the participants were women. During the six months after influenza vaccination, 25 (17.9%) individuals in the case group and 75 (53%) individuals in the control group who did not receive the flu vaccine became infected with COVID 19 during the same period. The study of statistical results showed that there was a statistically significant difference between some common symptoms of COVID 19 in the two groups (P=0.001) and symptoms such as fever, muscle pain and cough has been significantly less common in the case group. Chi square test showed that there was a statistically significant difference in terms of disease duration between the two groups (P=0.000).

Conclusion: Influenza vaccine reduces the incidence of COVID 19 and reduces the need for hospitalization in patients with this disease. However, due to the positive effects of influenza vaccine on COVID 19 and its low cost, it is recommended to inject influenza vaccine more than before.

G-1499

Data elements and technical features of a skin self-care application

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Introduction: The skin has a great impact on beauty and is also the largest organ and mirror of the human body. Skin care is a part of human life from birth to death and this care includes the beauty aspect to various diseases including cancer. Various contextual, environmental, nutritional and lifestyle factors have a significant impact on the health and control of skin disorders. Therefore, self-care measures can be very effective. The development of new technologies in the field of health, including companion health, plays a prominent role in self-care of diseases. The purpose of this research is to identify the data elements and infrastructure requirements necessary to design and developed a skin self-care application.

Method & material: The current study was conducted in two main stages. In the first stage, with the aim of identifying the necessary information elements, relevant articles were searched in the PubMed, Scopus, Web of Science, and Google Scholar databases based on the search strategy. In addition, GOOGLE PLAY was also surveyed to find applications related to skin and necessary data elements were extracted. Finally, the collected information elements were prepared in the form of a checklist. In the second stage, the checklist prepared based on the Likert scale was designed and provided to dermatologists and health information technology specialists, and according to the scoring, the analysis was done and finally the information elements needed to create a self-care application were determined.

Result: A total of 2658 articles were found in the databases and after analysis based on the PRISMA chart and according to the inclusion and exclusion criteria of the study, finally 6 articles were included. In the GOOGLE PLAY search, 11 applications were found, of which 4 related applications were reviewed. A total of 151 data elements were extracted from both methods. After analyzing these elements, the number of 47 information elements was confirmed and divided into 6 categories: demographic and identity information (9 items), disease history (7 items), clinical symptoms (12 items), initial diagnosis (5 items), patient's medical record (4 items), and care programs (10 items).

Conclusion: The identified requirements for skin self-care application can facilitate physician-patient communication and will have benefits such as modification and management of lifestyle and diet, improvement of self-care process, better skin care and control and treatment of skin diseases.

G-1505

Effects of Polycaprolactone–Propolis combined scaffold with Quercetin on burn wound healing in the male rat model

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Introduction: Burn injuries are a major health challenge in all societies and result in physical, psychological, hygiene-related disorders, and economic burdens for patients and their families more than any other type of trauma. A ten-year average of mortality statistics due to burns shows that 2,690 people lose their lives each year due to burns. As a new solution in this study, we aim to investigate the healing properties of propolis in combination with polycaprolactone (PCL) scaffolds and quercetin in the treatment of skin injuries resulting from burns.

Method & material: The study was conducted on 50 adult male Wistar rats. The rats were divided into 5 groups: the control group (the regular dressing), the propolis group, the PCL group, the quercetin group, and the combination group (all three substances). The burn wound was created between the shoulder blades and below the neck using a hot iron, resulting in a third-degree thermal burn with a diameter of 5 millimeters. Nanofiber PCL-propolis dressings were prepared by electrospinning and were used as combination dressings along with quercetin. Digital photographs were taken of the target wounds, and the wound area was measured using Image J software.Skin samples from the wound area and healthy skin around it were obtained using punch biopsies for histological examinations. To assess the effects of the dressings, the percentage of wound improvement, epidermal thickness, number of hair follicles, and collagen production were measured on the 7th and 14th days.

Result: The highest and lowest epidermal thickness was observed in the combination group and the control group, respectively, with this difference being statistically significant. Furthermore, the highest and lowest numbers of hair follicles were observed in the combination group and the control group, respectively, and the difference between the two groups was statistically significant. The smallest and largest wound areas were observed in the combination group and the control group, respectively. The highest level of collagen synthesis was observed in the combination group, while the lowest was in the control group. There was a statistically significant difference between the treatment groups and the control group, but there was no significant difference among the treatment groups.

Conclusion: In conclusion, although the use of individual dressings also showed better results compared to the control group, the combination dressing of propolis, PCL, and quercetin demonstrated the highest effectiveness in burn wound healing.

G-1508

Mobile Health Applications for Low Back Pain (LBP) Self-management: A Systematic Review

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Introduction: Low back pain (LBP) is a common problem affecting people around the world. It is a leading cause of disability, resulting in significant personal and economic consequences. Self-management is one of the essential strategies for managing LBP, and the use of mobile health (mHealth) apps may be a useful tool in this regard. This systematic review aims to investigate the effectiveness of mHealth apps in LBP self-management.

Method & material: A comprehensive search was conducted in PubMed, Scopus, Cochrane Library, and Web of Science databases for studies that evaluated the use of mHealth apps in LBP self-management. Searches were between March 1, 2015 and March 15, 2022. Quality assessment of included studies was done using the Cochrane Risk of Bias Tool. A total of 12 studies were included in the review.

Result:: in total, 12 studies were selected for the review with overall 2509 persons with LBP, of whom 1429 (56.95%) were women. Among the studies (5/7, 71%) that reported the type of pain, 85% (390/459) of the participants were experiencing chronic LBP. A total of 7 different mHealth apps were identified, of which 5 contributed to a statistically significant reduction in LBP and clinically meaningful changes. Of the 12studies,8 (66%) used 4 different assessments for disability, of which 5 (62.5%) showed statistically significant improvements in the level of functional ability of participants in the experimental groups using an mHealth app with built- in self-management content for LBP.

Conclusion: This systematic review provides evidence for the effectiveness of mHealth apps in LBP self-management. The use of such apps has shown significant improvements in LBP intensity, disability, and pain-related fear, and high user satisfaction. However, the studies included in this review were of limited quality, and further research is needed to confirm the effectiveness and sustainability of mHealth apps in LBP self-management. Healthcare providers should consider incorporating mHealth apps into LBP management plans to improve patient outcomes.

G-1514

Investigating the effect of Atorvastatin on serum biochemical and inflammatory factors on premature ovarian insufficiency (POI) in rats induced by Cyclophosphamide

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Introduction: Premature ovarian insufficiency (POI) is one of the causes of infertility that affects 1-5% of women under 30-40 years of age. This disease is associated with the depletion of the ovarian follicular reserve and decreased ovarian function and is characterized by oligomenorrhea, hypoestrogenism, and increased levels of gonadotropins. Cyclophosphamide (CTX) is widely used for the treatment of breast cancer and causes increased ovarian damage in young women undergoing chemotherapy. Granulosa cells (GCs) of ovarian follicles and blood vessels of the ovary are sensitive to reactive oxygen species (ROS) created by active metabolites of cyclophosphamide. Atorvastatin (ATV) is one of the powerful cholesterol inhibitors that also has antioxidant and anti-inflammatory effects. In this study, the effect of atorvastatin on serum biochemical and inflammatory factors in rats after induction of premature ovarian insufficiency by cyclophosphamide was investigated.

Method & material: 18 female Wistar rats were randomly divided into 3 groups (n=6) including control, POI (CTX: 50 mg/kg on the 1st day and 8 mg/kg for 14 consecutive days, IP), and POI+ATV (after POI induction by CTX, 10 mg/kg, ATV was injected intraperitoneally for 10 consecutive days). After the end of the treatment period, serum levels of follicle-stimulating hormone (FSH), estradiol hormone (E2), anti-Müllerian hormone (AMH), tumor necrosis factor-alpha (TNF-α), and Interleukin-6 (IL-6) were measured by ELISA method. The data were analyzed by using one-way ANOVA and Tukey's tests with a significance level of p0.05.

Result: POI causes a significant decrease in the level of anti-Mullerian hormone (AMH), Estradiol (E2) (p0.001), a significant increase in follicle-stimulating hormone (FSH), tumor necrosis factor-alpha (TNF-α), and interleukin-6 (IL-6) were compared to the control group (p0.001). The levels of anti-Müllerian hormone (AMH), estradiol (E2), follicle-stimulating hormone (FSH), tumor necrosis factor-alpha (TNF-α), and Interleukin-6 (IL-6) were reversed in the POI +ATV group compared to the POI group (p0.05).

Conclusion:: Our observations showed that atorvastatin has positive effects on the ovary and can reduce the inflammation caused by cyclophosphamide oxidative stress and to some extent improve the function and hormones of the ovary.

G-1520

Using Machine Learning for Diagnosis, Prediction, Prevention, Treatment, and Dose Response of Methotrexate in Rheumatoid Arthritis

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Introduction: Rheumatoid arthritis is a chronic autoimmune disease that causes pain, swelling, and stiffness in the joints. This disease can have a significant impact on an individual's mobility, quality of life, and even mortality. The potential of artificial intelligence (AI) approaches to revolutionize the treatment of rheumatic diseases is evident. In the case of rheumatoid arthritis, timely diagnosis is crucial as the progression of the disease can result in structural damage and functional disability. Late diagnosis is associated with poor long-term outcomes for patients, highlighting the importance of early detection.

Method & material: Data Collection:

Input data (x)

Output data (y)

Input data includes:

A. Clinical data, such as medical history, age, sex, weight, and body mass index

B. Laboratory data, including serum and blood samples, as well as results of relevant tests

C. Imaging data, such as sonography, MRI, and CT scan results

D. Electronic health records (EHR)

E. Omics-related data, including genome, protein, DNA, RNA, and small biomolecules

Output data includes:

A. Patients diagnosed with rheumatoid arthritis: 40% of them are prescribed specific treatments and therapeutic drugs tailored to their needs.

B. Patients with acute conditions related to the disease (100-120 cases): 78% of these patients receive treatment recommendations, including drug dosages and disease management guidelines.

C. Individuals at risk of developing the disease in the future (60-80 cases): Appropriate preventive measures and recommendations are provided based on the relevant percentages.

Result: Considering the advancements in AI in the medical field and the challenges associated with rheumatoid arthritis, such as high costs and delays in diagnosis and treatment, we have developed a machine learning tool with an accuracy of 90% or higher. This tool assists in the diagnosis, treatment, prediction, prevention, and dosage response of the methotrexate drug for rheumatoid arthritis.

Conclusion: Our machine learning model enables doctors to identify alternative treatments for patients who do not respond to conventional therapies. With an accuracy of 90% or higher, our tool can diagnose, treat, predict, prevent, and prescribe optimal doses of methotrexate for rheumatoid arthritis patients in a matter of seconds. Despite the complexity of the disease, AI can significantly improve patient care and outcomes in the field of rheumatology

G-1541

Intravenous Alteplase, Outcome and Follow-up of acute stroke patients; Stroke Care Center of North of Iran

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Introduction: Stroke is a leading cause of death and Alteplase injection is a choice for re-perfusion of brain tissue. But due to the risk of hemorrhage, thrombolytic therapy with intravenous alteplase is restricted. In the current study, we assessed the outcome and follow-up of patients with or without taking intravenous Alteplase.

Method & material: This cohort study was conducted on 100 stroke patients (49 intervention vs. 51 control) who were referred to the stroke center in the north of Iran between 2019-2021 years. The diagnosis of stroke, inclusion, and exclusion criteria were according to the National Guideline of Stroke. Intravenous alteplase is administered at a rate of 0.9 mg/kg with a maximum dose of 90 mg per hour, along with an initial bolus dose of 10% of the total dose in the intervention group. Demographic information and National Institutes of Health stroke scale (NIHSS) and modified rankin scale (mRS) score were analyzed in three periods of 7, 30, and 90 days. Fisher's exact test, P-paired Test, T-test, and repeated measures ANOVA at a confidence level of 95% were conducted in SPSS version 22 to analyze the data.

Result: The mean age of patients was 66.81±11.77 years and 51 cases (51%) were male. Ten cases (10%) had a hemorrhage. According to the Repeated Measures ANOVA with Greenhouse-Geisser correction, the difference in the average of NIHSS score in the follow-up of the control group was not statistically significant (P=0.54), but in the intervention group, this difference was statistically significant (4.92 ± 3.081 in the 7th day, 2.90 ± 2.552 in the 30th day and 1.84 ± 2.375 in the 90th day, p0.001). Furthermore, the post hoc test with Bonferroni correction showed that in the case group, the average NIHSS score on day 30 compared to 7 decreased by 2.020 points (P0.001), the NIHSS mean score on day seven decreased by 3.082 (P0.001), and NIHSS mean score on day 90, compared to day 7, decreased by 3.082 points, which were statistically significant (P0.001).

Conclusion: Treatment with intravenous Alteplase had a good outcome, especially on neurological disorders and degree of disability. The challenges of administration of intravenous Alteplase in these patients are suggested for further studies.

G-1545

ECG Paper Records Digitization: A new approach to detection of cardiovascular diseases

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Introduction: The electrocardiogram is a graphical representation of the heart's electrical activity, which is commonly used to detect heart dysfunctions like arrhythmias. Normally, the ECG is printed on thermal paper for further physical inspection by medical practitioners. It can be error-prone process of examination to manually assess and share the bulk ECG paper records. Additionally, archiving ECG printouts in paper format has made it difficult to create an electronic medical database. The study aims to present a new algorithm for automatically extracting ECG signals from scanned ECG sheets to detect arrhythmia in COVID-19 patients. The method involves using digital image processing techniques to convert ECG paper records into a time series digitized signal form, which allows for easy storage and analysis of them. The proposed work aims to convert ECG paper records into a digital signal and generate a diagnosis of arrhythmia in some COVID-19 patients according to these digital ECG.

Method & material: To display the ECG signal images in MATLAB, the original 140 ECG recorded images were pre-processed by operations such as edge detection, image binarization and deviation correction. Then, the ECG waveform was extracted from the background networks based on connected component analysis (CCA). For waveform segmentation, horizontal projection was applied to obtain the segmentation boundaries. The ECG signal trace was then panned to extract the time series of the signal. The extracted signal was plotted as the final ECG signal using MATLAB. Efficient noise removal and image enhancing algorithms are also required to increase overall digitization process accuracy. After digitization of ECG we measure the QT interval, as well as heart rate and R-R intervals as the most important indicators of arrhythmia in 140 patients with COVID-19 infection. Cardiac arrhythmia was diagnosed in 70 patients by presenting a new method and using digital ECG images.

Result: The calculation of HR and QT intervals using MATLAB showed that the average length of the QT period in patients with COVID-19 who had arrhythmia was equal to 402.7±10.38, while the COVID-19 patients without arrhythmia problems, showed an average equivalent of 347.36 ± 6.1. The results showed that the group with arrhythmia has a longer QT period than other COVID-19 patients with P0.001, While the results did not show a significant difference in heart rate between the two groups.

Conclusion: The use of digital analysis of ECG signals is recommended to accelerate the analysis process and achieve efficient and automatic diagnosis in the future through deep learning process.

G-1563

The effect of rapid rehabilitation nursing intervention on patients undergoing laparoscopic surgery: A systematic review

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Introduction: Recently, technological advancements have led to the use of new surgical methods, one of which is laparoscopy. Like all surgical methods, laparoscopy can have complications, and there are several approaches to decrease these complications. Rapid rehabilitation nursing (RRN) is one such approach that has been developed to improve rehabilitation practices and accelerate patients' post-operative recovery. RRN involves the use of preoperative validated strategies through the cooperation of different departments, such as surgery, anesthesia, nursing, and nutrition, to diminish postoperative complications, promote recovery, and decrease mortality. Nevertheless, there is a lack of research analyzing the effect of RRN in patients undergoing laparoscopic surgery. To fill this gap, the present study was conducted to shed light on clinical practice.

Method & material: Based on Cochrane systematic review principles and PRISMA guideline, this study was conducted using scientific databases including Cochrane CENTRAL, PubMed, Web of Science, and Scopus. The Google Scholar search engine was also used for searching grey literature. Keywords, including rapid rehabilitation nursing, fast track recovery, enhanced rehabilitation, and laparoscopic surgery, and their related synonyms were comprehensively searched without time limitation. The inclusion criteria included interventional studies that focused on examining the results of providing RRN to adults undergoing laparoscopic surgery. The exclusion criteria included not having an abstract and full text, and Review studies and conference papers. Two authors independently conducted screening and data extraction, and any discrepancies were resolved through consensus involving a third author. The ROB2 critical appraisal tool was used for quality assessment of included articles. The final data were presented in an extraction table.

Result: A total of 3,940 articles were found, and after removing 136 duplicates and 3,745 irrelevant articles, the full text of 59 articles were assessed for eligibility. Finally, 12 original research articles including randomized, non-randomized controlled trials were included in the study. The main outcomes were as follows, with a significant difference between intervention and control group: shortened hospitalization length (N=11), earlier time of getting out of bed (N=6), decreased post-operative complication N=9/10 (90% showed significant difference), increased nursing satisfaction (N=7), decreased pain severity (N=4), decreased time of catheter removal (N=3), decreased hospitalization cost (N=2), earlier gastrointestinal function recovery (including: first anal exhaust=10, first time to eat=4, first time to defecation=3, bowel sound=1), operation time N=1/3 (33/3% showed significant difference) and increased quality of life (N=3).

Conclusion: Based on the results of this study, RRN may have a significant effect on the outcomes of patients undergoing laparoscopic surgery, and it would be recommended to be used in clinical practice.

G-1565

Novel Anti-Alzheimer Marine-Sourced Compounds with Bilateral Mechanisms; Results of an In-silico Study through Virtual Screening.

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Introduction: Alzheimer's disease(AD) causes dementia through amyloid beta(Aβ) peptide accumulation, causing neurodegeneration. β-site amyloid precursor protein(APP) cleaving enzyme-1(BACE1) is involved in the cleavage process leading to neurotoxic Aβ generation. AD pathogenesis may be influenced by oxidative stress, which alters membrane phospholipids. Marine environments contain beneficial antioxidants. Through virtual screening of marine resources, we searched for novel anti-AD treatments that are antioxidant-BACE1 inhibitors.

Method & material: To extract marine antioxidant products, the dictionary of marine natural products(MNP) was explored. PubChem and ChemDraw software were used to find products' structures. All products were filtered through Rule-of-Five(RO5) after converting into 3-dimensional structures.BACE1's crystal structure (PDB ID:2B8L) was obtained from the PDB Bank. MOE software was used to optimize BACE1. Discovery Studio was used to analyze binding interactions.

Result: 43compounds were extracted from MNP, converted into 3D format; then, optimized and minimized using MOE. 23compounds were included to study after filtering 43compounds by RO5. We used Autodock-Vina to identify BACE1 inhibitors. Compounds were sorted descendingly by binding affinity to BACE1. Highly affiniated compounds to BACE1 were d-Indomycinon(-8.9kcal/mol), Sterin-A(-8.5kcal/mol), Luteone(-8.3 kcal/mol). In virtual screening, we found d-Indomycinone from Streptomyces sp. that binds to BACE1(-8.9kcal/mol). Its TYR77 also formed a weak pi-alkyl bond. Sterin-A, the second highly affiniated compound to BACE1(-8.5kcal/mol), extracted from stereum hirsutum with antioxidant properties, formed hydrogen bonds with the enzyme's active site. A Pi-alkyl bond with Sterin-A was also observed. Luteon, found in higher plants, exhibits the third highest affinity for BACE1(-8.3kcal/mol). This ligand interacts with BACE1 through hydrogen bonds with polar residues. Alkyl bonds, pi-pi stacking, and pi-anion interactions also formed. Twelve compounds had binding energies between -7.3 and -8.9kcal/mol, an impressive result out of 23

Conclusion: compounds. These compounds are BACE1 inhibitors and antioxidants. Targeting AcetylCholineEsterase (AChE) can discover impressive results. We suggest further in-vitro and in-vivo research on these ligands after molecular dynamic and ADME studies to estimate their behavior in-vivo.

Conclusion: Based on AD pathophysiology, natural marine products were searched for antioxidants to screen the anti-BACE1 potential virtually. 23 compounds were included, after filtering 43 compounds extracted from the dictionary by RO5. The most highly affiniated compounds were d-Indomycinone(-8.9kcal/mol), Sterin-A(-8.5kcal/mol), and Luteone(-8.3 kcal/mol). In-silico, in-vitro, and in-vivo studies with these compounds may lead to novel bilateral anti-AD therapeutic approaches.

G-1569

Virtual Screening Strategy to Predict HSP90 Inhibitors as Anti-Cancer Agent

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Introduction: In the last decade, the molecular chaperone heat shock protein 90 (HSP90) has emerged as an important target in cancer therapeutics and has subsequently become the focus of several drug discovery and development efforts. HSP90 plays a crucial role in the folding of many proteins involved in cancer such as oncoproteins and kinases. HSP90 expression increases in cancer cells compared to normal cells.

Method & material: This study was started by obtaining the HSP90 PDB file (6lsz) from the protein data bank and creating a compounds library from the PubChem database based on Onalespib structure as a known HSP90 inhibitor. After a virtual screening process with three levels of accuracy was started. In the quantum mechanics docking (QPLD) stage, molecular docking calculations were performed based on quantum mechanics optimization of ligands, in terms of length, angle, and partial atom charges. In the final screening, the binding free energy of the protein-ligand complexes was calculated by the MM-GBSA method, and the best compound was proposed. Finally, the stability of the best-proposed compound was investigated using a molecular dynamics simulation study, and its results were compared with MD results of the Onalespib-protein complex and HSP90 protein as a reference.

Result: From the PubChem library, 8134 compounds were extracted and introduced to virtual screening. In the virtual screening step, 63 compounds were obtained with the highest interactions in HSP90 active site and the lowest XP GScore rather than Onalespib as a reference compound. All the obtained compounds were in the optimal range of pharmacokinetic and physicochemical properties, but among them, only 26 compounds showed potential biological activity. Afterward, QPLD studies were performed, and amounts of energies and interactions were obtained a little different from the molecular mechanic docking results. Finally, the binding free energy results were obtained. Compound CID_5628122 with the most negative free binding energy (-82.230kcal/mol) than Onalespib was chosen and introduced to MD simulations studies. During 100 nm MD simulation, the root mean square deviation (RMSD) for the backbone of the protein and ligand, the root mean square fluctuation (RMSF), and the radius of gyration (Rg) were investigated.

Conclusion: The results investigation of the free binding energy showed that the resorcinol ring plays the main role in the values of free binding energy and the interaction between the ligand and the protein in the complexes CID_5628122/Onalespib-HSP90. Also, the resorcinol ring is essential for Vander Waals interactions in Hsp90 active site. Moreover, the conversion of the amid group inside of the phenyl ring (Onalespib) to outside of the phenyl ring (CID_5628122) could be led to increasing free binding energy. The virtual screening methods together with the calculation of the binding free energy and MD simulation could be a strong strategy to predict new Hsp90 inhibitors.

G-1570

Investigating the anti-proliferative effects of mesenchymal stem cells carrying Coxsackie oncolytic virus in combination with ozone therapy and probiotic therapy with Lactobacillus casei in an experimental model of colorectal cancer

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Introduction: Colorectal cancer is the third most common cancer in the world and its mortality rate is approximately 50% of patients. Despite the advances in treatment methods, in most tumors, tumor removal during surgery is considered to be the only effective treatment method. However, about 15-95% of patients show recurrence after surgery. Chemotherapy, one of the most common treatments for this disease, despite the remarkable success it has had in treating all types of cancers; It always faces two basic problems including drug resistance of cancer cells and side effects on healthy cells. For this reason, nowadays, much attention has been directed towards the use of multifactorial combined treatments. The aim of this study is to investigate the anti-proliferative effects of mesenchymal stem cells carrying Coxsackie oncolytic virus in combination with ozone therapy and probiotic therapy with Lactobacillus casei in an experimental model of colorectal cancer.

Method & material: The present study was carried out in the conditions of cell culture (Laboratory of Applied Virology Research Center) and mouse modeling (Laboratory Animal Maintenance Center) of Baqiyatallah University of Medical Sciences. After culturing CT-26 cells (colorectal carcinoma cell line), colorectal cancer mouse modeling was done by injecting 5×106 cells into the left flank of female BALB/c mice. After observing the palpable tumor, treating them with mesenchymal stem cells carrying Coxsackie oncolytic virus A21 (105 cells-twice at one week interval-peritumoral), Coxsackie oncolytic virus A21 (MOI 20, twice at one week interval) week-peritumoral), ozone (40 µg/ml, once every two days, for three weeks, peritoneal), probiotic Lactobacillus casei (109 CFU/ml, daily, orally for three weeks) and simultaneous treatment to investigate their synergistic effects became 10 days after the last treatment, half of the mice in each group were euthanized to check the effectiveness of the mentioned treatments. The other half

Result: The results of the present study showed that mice receiving combined treatment had significantly more favorable survival curves and slower tumor growth rate than tumor-bearing mice that received only single agent treatment and/or negative control mice. Also, combined treatment significantly increased the production of nitric oxide and lactate dehydrogenase in splenocytes cultures of tumor-affected mice. In addition, the use of multifactorial treatment method significantly increased the amount of IFN-γ secretion and on the contrary decreased the secretion of IL-4, IL-10 and TGF-β in spleen cell population compared to other groups.

Conclusion: According to the obtained results, it seems that the simultaneous use of ozone, Lactobacillus casei and mesenchymal stem cells carrying Coxsackie virus increases the effectiveness of anti-cancer treatment compared to each of the mentioned methods alone.

G-1577

Automatic diagnosis of multiple sclerosis from retinal images by optical coherence tomography device with artificial intelligence

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Introduction: Multiple Sclerosis (MS) is a prevalent autoimmune and inflammatory disorder that leaves demyelination and neurodegenerative changes in Central Nervous System (CNS). The retina is among body organs that is affected by MS, particularly the pRNFL, which is impaired during the early episodes of the disorder. Optical Coherence Tomography (OCT) images can play a key role in the preliminary stages. Convolutional Neural Networks (CNN)-based methods are commonly applied in image classification and have shown promising and applicable results in MS diagnosis.

Method & material: in total, 197 MS patients and 283 healthy cases were included in this study, and Spectralis OCT images were taken then, using data augmentation, the CNN was trained with 15,000 images. Finally, the automatic diagnosis algorithm for MS disease was implemented in Python, and then the network loss processes diagram was drawn, and the sensitivity, specificity, and accuracy of the algorithm were evaluated.

Result:: The disease was successfully diagnosed by OCT images with an accuracy of 93.0, a sensitivity of 96.47, and a specificity of 90.44.

Conclusion: The proposed method showed improvements in early-stage MS diagnosis and with the potentiality to be used in either the diagnosis or prediction of the progression of other diseases that affect the CNS (e.g. Alzheimer's disease, bipolar disorder, etc.).

G-1580

Performance of the models predicting 10– year risk of cardiovascular diseases in Asia: A systematic review and prediction model meta–analysis

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Introduction: The prevalence of cardiovascular diseases (CVDs) is rising in Asia. Accurate estimation of individual CVD risk is the fundamental component of prevention, and it is an important step towards personalized medicine. We aimed to review the performance of existing prediction models for CVDs in Asia.

Method & material: In this systematic review and meta-analysis (approval ID: IR.TUMS.SPH.REC.1400.353), we included studies that validated prediction models for CVD risk in the general population in Asia, using databases, including PubMed, Web of Science conference proceedings citation index, Scopus, Global Index Medicus of the World Health Organization (WHO) and Open Access Thesis and Dissertations (OATD) until November 2022. We also checked the reference list of included studies and related reviews to identify additional studies. We assessed the risk of bias using the prediction model risk of bias assessment tool (PROBAST). Meta-analyses of Concordance-statistic (C-statistic), as a discrimination index, and observed to expected ratio (OE), as a calibration index, were performed using random effects model with restricted maximum likelihood estimation.

Result: Out of 1315 initial records, 16 studies were included, with 21 external validations of six models in Asia. The validated models included Framingham models, pooled cohort equations (PCEs), SCORE, Globorisk, and WHO models, of which the two latter risk scores were validated only once. The pooled C-statistic for men ranged from 0.72 (95% CI 0.70 to 0.75) for the PCEs to 0.76 (95% CI 0.74 to 0.78) for the Framingham general CVD model. In women, it varied between 0.74 (0.95% CI 0.22 to 0.97) for the SCORE and 0.79 (95% CI 0.74 to 0.83) for the Framingham general CVD. The pooled OE ratio for men ranged from 0.21 (95% CI 0.018 to 2.49) for the Framingham CHD model to 1.11 (95% CI 0.65 to 1.89) for the PCEs. In women, it varied between 0.28 (95% CI 0.33 to 2.33) for the Framingham CHD model and 1.81(95% CI 0.90 to 3.64)

Conclusion: The Framingham models, PCEs and SCORE models exhibited acceptable discrimination, but poor calibration in predicting the 10-year risk of CVDs in Asia. Recalibration and updates are necessary before implementing these models in the region.

G-1583

Green synthesis and characterizations of silver nanoparticle using alcoholic extract of Astragalus sarcocolla gum and evaluation of antibacterial, antifungal and antioxidant activities

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Introduction: The emergence of drug-resistant bacteria is a growing concern in medicine, necessitating the development of effective antibacterial agents. Green methods for synthesizing nanoparticles have several advantages over conventional physical and chemical methods, including being low-cost, safe, and rapid. In this study, green silver nanoparticles (AgNPs) were synthesized using Astragalus sarcocolla gum (ASG) extract

Method & material: This experimental study evaluated various parameters affecting AgNO3 concentration (1-5 mM), time (15-60 min), and temperature (room temperature, 55°C, and 85°C) to obtain optimal conditions for the synthesis of ASG-AgNPs. The properties of the ASG-AgNPs were investigated using dynamic light scattering (DLS), UV-Visible spectroscopy (UV-Vis), transmission electron microscopy (TEM), Fourier infrared spectroscopy (FT-IR), and X-Ray diffractometer (XRD). The antibacterial, antifungal, and antioxidant activities were evaluated using the broth microdilution method and DPPH test.

Result: Optimal conditions for ASG-AgNP synthesis were achieved with 3 mM AgNO3 concentration, 85°C temperature, and 45 min duration. TEM analysis showed that ASG-AgNPs had a highly uniform, homogeneous, and spherical structure with an average particle size ranging from 15 to 30 nm. ASG-AgNPs exhibited effective antibacterial and antifungal activities against Klebsiella pneumoniae (MIC = 156.25 µg/ml; MBC = 156.25 µg/ml), Staphylococcus aureus (MIC = 312.5 µg/ml; MBC = 625µg/ml), and Candida albicans (MIC= 62.5 µg/ml; MFC = 62.5µg/ml). Additionally, ASG-AgNPs showed high antioxidant activity (98% and 90% inhibition at concentrations of 800 and 400 µg/ml, respectively). Compared to both chemical silver nanoparticles and the extract, ASG-AgNPs demonstrated enhanced antibacterial, antifungal, and antioxidant potency, indicating a synergistic interaction between the extract and silver nanoparticles.

Conclusion: This experimental study suggests that the synthesized ASG-AgNPs may serve as a promising candidate for medical and pharmaceutical applications, such as antimicrobial and antioxidant agents.

G-1584

Effect of Conditioned Medium Derived from Human Umbilical Cord–Mesenchymal Stem Cells on Neural Cells Apoptosis in Cuprizone Mice Model of Multiple Sclerosis

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Introduction: One of the new aspects in the pathophysiology of multiple sclerosis is the apoptosis of neurons and oligodendrocyte cells in addition to the neuroinflammatory, and demyelinating nature of this disease. Human umbilical cord mesenchymal stem cells (h-UCMSCs) are considered better cells for clinical uses due to their non-invasive access, faster self-renewal properties, more primitive state, and higher expression of immune-modulating genes than other MSCs. Furthermore, their neuroprotective potential, anti-inflammation effects, and regenerative ability have been proven. Among different treatment strategies for MS, stem cells are a new and promising therapeutic approach in MS but currently, the direct transplantation of stem cells faces important problems, so the use of conditioned medium and exosomes is suggested. In this original article, we aim to investigate the effect of h-UCMSC supernatant or conditioned media in the cuprizone model of multiple sclerosis in mice with focusing on neural cells apoptosis.

Method & material: 8-weeks-old male C57BL/6 mice (n = 40) divided into four groups and depending on the group they were in were fed a regular diet or a diet containing cuprizone (0.2% w/w) for six weeks. h-UCMSC was cultured and In the third passage, after the confluency of the cells reached 90% supernatant was collected. h-UCMSC supernatant was administered intraperitoneally for two consecutive weeks at the end of the fourth week of cuprizone feeding. Animals (n = 12) were perfused with normal saline at the end of sixth week. The brains were sectioned coronally in 6-8-µm thickness according to Paxinos mouse stereotaxic atlas, And then tunnel staining in corpus callosum was used to count apoptotic cells with physical disector method.

Result: The growth factors of h-UCMSC conditioned media reach the lesion site through Intraperitoneal injection and decrease apoptotic cells in the corpus callosum

Conclusion: Our data indicated an anti-apoptotic potency of multiple i.p. h-UCMSC supernatant injection in the cuprizone model of multiple sclerosis in mice.And using condition medium and exosomes could be considered in MS treatment.

G-1598

Propenoic acid derivatives as tyrosinase inhibitors: Design, synthesis and efficacy studies through in vitro and in silico approaches

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Introduction: Tyrosinase is a copper-containing enzyme that plays a crucial role in the biosynthesis of melanin, which is responsible for determining the skin and hair color in humans. However, excessive activity of this enzyme can lead to hyperpigmentation disorders. In Previous tyrosinase inhibitors have exhibited some drawbacks, such as low efficacy, low selectivity and potential toxicity. Some inhibitors have also shown poor stability and solubility, which limits their effectiveness. Therefore, new tyrosinase inhibitors with improved pharmacological properties is necessary to overcome these limitations and provide more effective treatments for hyperpigmentation disorders. This research project attempts to design a new series of hybrid compounds using in-silico analysis of crystallographic structure of tyrosinase and ligand-based studies. Considering the importance of α,β unsaturated carbonyl pharmacophore group in cinnamic acid and pyrazole nucleus, new propionic acid-based derivatives were designed and synthesized as potential tyrosinase inhibitors.

Method & material: The final compound was synthesized in several stages. Different substituted acetophenones reacted with phenyl hydrazine derivatives in the presence of sulfuric acid in absolute ethanol to afford the hydrazone intermediates. The synthesized hydrazone intermediates then undergo a Vilsmeier–Hack reaction in the presence of DMF and POCl3 to form pyrazole carbaldehydes. The final products were synthesized by condensing equimolar amounts of malonic acid with different aldehydes in the presence of the catalytic amount of piperidine in pyridine. In order to verify the correctness of reactions after purification of each product H-NMR, C-NMR, FT-IR and CHNS analysis were taken. The inhibitory activity of tyrosinase was evaluated using L-dopa as substrate, kojic acid as positive control and fungal tyrosinase enzyme. The activity of the fungal tyrosinase enzyme was investigated by spectroscopic method and by observing the formation of dopamine at 475 nm.

Result: A number of compounds showed more tyrosinase inhibitory effects compared to positive control, kojic acid. Screened compounds showed an inhibitory range of 4.71 to 112.3%. Among the investigated compounds, analogous with OH, NO2, CH3 and Cl substitutions at R1 position showed the strongest inhibitory with inhibitory percentages of 112.3, 108.3, 96 and 99.6, respectively. These compounds were approximately 1-3 times stronger than kojic acid as positive control. The results of Structure-Activity-Relationship indicated that the hydrogen bond interactions probably play an important role in the inhibitory activity.

Conclusion: Based on these studies, it is assumed that the newly identified inhibitors may serve as lead molecules for further research for getting powerful tyrosinase inhibitors. Synthesized compounds can be effective as a potential inhibitor in the cosmetic, pharmaceutical and agricultural industries. Hopefully more studies will be done in the future.

G-1600

Nanocomplex Formation between CpG and HPV16 E7 Epitope Exhibits Therapeutically Efficiency for Cancer Immunotherapy

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Introduction: Despite the broad use of peptide-based vaccines against cancer, they fail to induce potent anti-tumor immune responses due to low immunogenicity. Therefore, adjuvants have been used to augment their therapeutic efficacy. Here, we developed a nanovaccine to co-delivery of epitope/adjuvants for cancer immunotherapy

Method & material: Owing to the negative charge of toll-like receptor (TLR9) agonist CpG, a modified and positively-charged HPV16 E7 MHC-I specific epitope and CpG were mixed to form a nanocomplex (CpG/Pep) due to electrostatic interactions. Dynamic Light Scattering (DLS) and ZP (zeta potential) were used to confirm nanocomplex formation. The levels of IFN-γ and IL-10 were assessed by enzyme-linked immunosorbent assay (ELISA) and CTL response was measured by flow cytometry. The inhibitory effect of the CpG/Pep nanocomplex was assessed in the TC-1 mouse tumor model.

Result: DLS and ZP analyses revealed that mixing positively-charged HPV16 E7 epitope with negatively-charged CpG increased the surface charge of CpG (from -42.7 mV to +6.7 mV) without considerable change in its size (from 112.9 nm to 115.8 nm). Compared to HPV16 E7 epitope and CpG, the CpG/Pep nanocomplex induced notably higher levels of IFN-γ and IL-10 as well as CD107a expression on CD8+ T-cells. Moreover, intratumoral administration of the CpG/Pep nanocomplex significantly inhibited tumor growth in the TC-1 mouse tumor model.

Conclusion: Our study introduced a generalized and facile approach to developing peptide- and adjuvant-based nanovaccine for cancer immunotherapy.

G-1603

Evaluating The Relationship Between Dietary Inflammatory Index and Hypertension: A Cross-Sectional Study

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Introduction: Hypertension is the most prevalent preventable risk factor for cardiovascular and chronic kidney diseases, affecting more than 1.3 billion people worldwide. Desperately, controlled hypertension has been achieved in less than 20% of patients. Inflammation has a crucial role in the pathogenesis of hypertension. Anti- and pro-inflammatory diets influence the plasma level of interleukins and the immune system. Therefore, the present study aimed to investigate the association between the pro-inflammatory diet and hypertension.

Method & material: This cross-sectional study involved 10,139 participants from the PERSIAN cohort of Fasa. The individuals with pregnancy and missed data were excluded. To assess the inflammatory potential of participants' diets, Dietary Inflammatory Index (DII) was calculated using the recorded Food Frequency Questionnaire. Negative and positive DII scores were considered anti- and pro-inflammatory, respectively. The hypertension group was defined as a history of medication (confirmed by a physician) for hypertension or high systolic/diastolic blood pressure (≥140/90 mmHg), according to the International Society of Hypertension (ISH) guideline.

Covariates of this study were age (years), gender, body mass index (kg/m2), smoking, Educational status (low, medium, high), socioeconomic status (Assert index), physical activity (metabolic equivalent of tasks), and chronic diseases (diabetes, renal failure, fatty liver, depression, thyroid disease, and cardiovascular diseases).

All statistical analysis process was performed in SPSS v.23 (IBM Inc., Chicago, Ill). The quantitative and qualitative variables were reported as mean (standard deviation) and frequency (percent). The DII was compared among individuals with and without hypertension using chi-square and independent T-test. Then, logistic regression was performed to assess the correlation between an anti-/pro-inflammatory diet with hypertension, adjusted for effective covariates (p-value < 0.20). The level of significance was considered as a p-value < 0.05.

Result: After exclusions, 9,987 participants (mean age, 48.6±9.6 years; 4,489 men (44.9%)) remained eligible. The mean DII score was -0.89±1.75. The participants with hypertension have significantly higher DII scores (-0.95±1.71 vs. -0.70±1.83, p-value 0.001). Also, most participants with hypertension (53.6%) had a pro-inflammatory diet, while most healthy participants had an anti-inflammatory diet (51.2%, p-value0.001). Eventually, a pro-inflammatory diet was significantly associated with hypertension in the unadjusted model (Odds Ratio(OR):1.213, 95%Confidence-Interval(CI):(1.107, 1.329), p-value0.001); but after adjustment, the association was not significant anymore (OR:0.993,

G-1608

Investigation and toxicity of silver nanoparticles on heart tissue changes in male Wistar rats

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Introduction: Silver nanoparticles have received attention in recent years due to the use of medical, textile, health and electronic devices and materials. Being in the environment of nanoparticles causes function and histology. Having said that, there is little information about the production and consumption of these substances on body tissues, especially heart tissue. Therefore, this study was conducted with the aim of investigating the toxicity of silver nanoparticles on heart tissue changes in male Wistar rats.

Method & material: In this experimental study, 40 Wistar rats with an age of 8 to 12 weeks and an average weight of 200 ± 30 grams were randomly divided into 5 groups of 8 including 4 experimental groups that received silver nanoparticles with concentrations of 30, 125, 300 and 700 mg/ kg of body weight were received orally for 28 consecutive days and a control group was divided. The size distribution of silver nanoparticles before the intervention was observed and analyzed using an electron microscope. Rats in the control group received an equal volume of deionized water. After anesthetizing and necropsy, the hearts of the rats were first weighed. Then tissue preparation and hematoxylin and eosin staining were done to prepare slides. Then the tissue structure was examined with an optical microscope and magnification of 40 and 100 and in ten random fields.

Result: After exclusions, 9,987 participants (mean age, 48.6±9.6 years; 4,489 men (44.9%)) remained eligible. The mean DII score was -0.89±1.75. The participants with hypertension have significantly higher DII scores (-0.95±1.71 vs. -0.70±1.83, p-value <0.001). Also, most participants with hypertension (53.6%) had a pro-inflammatory diet, while most healthy participants had an anti-inflammatory diet (51.2%, p-value<0.001). Eventually, a pro-inflammatory diet was significantly associated with hypertension in the unadjusted model (Odds Ratio(OR):1.213, 95%Confidence-Interval(CI):(1.107, 1.329), p-value<0.001); but after adjustment, the association was not significant anymore (OR:0.993, 95%CI:(0.891, 1.107), p-value =0.901).

Conclusion: This study revealed that although hypertensive patients have higher mean DII scores, there is no significant relationship between a pro-inflammatory diet and hypertension. Therefore, further studies are required to address this association.

G-1611

Effects of short and long-term exposure to air pollution on COVID-19 mortality and morbidity: A Systematic Review and Meta-Analysis

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Introduction: The Effects of short and long-term exposure to air pollution on COVID-19 mortality and morbidity remains inconclusive despite several investigations. Therefore, we conducted a systematic review and meta-analysis of observational studies to update the existing scientific evidence.

Method & material: We searched PubMed, Web of Science and Scopus databases until February 1, 2023 using a combination of keywords related to the type of exposure, health outcomes and the type of population. The search was based on a combination of MESH terms, as follows: (PM2.5 OR MP10 OR SO2 OR NO2 OR O3 OR CO OR air pollution) AND (morbidity OR mortality OR death OR incidence OR risk) AND (COVID-19). We assessed between-study heterogeneity using the $\chi 2$ and $\tau 2$ tests, as well as I2 statistics. We explored the possibility of publication bias using Begg's and Egger's tests and trim-and-fill analysis. We reported the overall effect sizes as relative risk (RRs) with a 95% confidence interval (CI) using a random-effects model.

Result: A total of 2,823 articles were identified in the initial search of databases. Finally, 57 studies were included in the meta-analysis. The result of the meta-analysis showed that there is a significant relationship between NO2 and mortality of COVID-19, with a relative risk of 1.064 and a confidence interval (1.015, 1.115), I^2=87.917 (p=0.01), and there is a significant relationship between PM2.5 and mortality of COVID-19 with a relative risk of 1.153 and a confidence interval (1.057, 1.259), I^2=99.403 (p=0.001). there is a significant relationship between PM10 and mortality of COVID-19 with a relative risk of 1.122 and a confidence interval (1.000, 1.258), I^2=94.929 (p=0.049).

Conclusion: This meta-analysis provides updated evidence on the exposure to NO2, PM2.5, and PM10 is associated with an increased risk of mortality of COVID-19.

G-1613

The role of p53/miR-34a/SIRT1 feedback loop in metformin-induced radio sensitivity of colorectal cancer cells

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Introduction: Metformin, an inexpensive and most available medication used to treat type 2 diabetes, could have anti-cancer effects. Evidence has suggested that metformin increases radiation sensitivity in cancer cells including, colorectal cancer, as one of the most prevalent cancers. The exact molecular mechanisms of its radio sensitivity effects are not yet known comprehensively. The aim of this research is to assess one of the possible suggested molecular mechanisms of this process.

Method & material: Our study was approved by the ethics committee of the Qazvin University of Medical Science. We applied radiation-resistant colorectal cancer cell lines (SW480 and SW620). The expression rate of miR-34-a, SIRT1 in resistant and control cell lines was evaluated by Quantitative Real-time PCR(QRT-PCR) and the rate of cell proliferation and cell apoptosis was checked by CCK-8 assay and flow cytometry after the cell lines were treated with different concentrations of metformin at different intervals. The Western blot method was also used to confirm the expression of some genes. Data analysis was done with Graph Pad Prism 7 (Graph Pad PRISM V 5.04 analytical software). The mean differences between the groups were analyzed by Student's t-test and ANOVA. Also, we used Brown-Forsythe and Bartlett's tests for the evaluation of uniformity of variance within the groups.

Result: The survival rates of resistant and non-resistant cells against different doses of radiation were investigated after resistant cell construction. Results have shown that the expression of miR-34-a was down-regulated (0.29±0.11) in radiation-resistant cancer cells (P0.0001), while the expression of SIRT1 was up-regulated (4.5±0.25) (P0.0001). Metformin has enhanced the radio sensitivity of cancer cells in a dose and time-dependent manner. Treatment with 50µm metformin after 48h led to a decrease in cell viability and an increase in the apoptosis of resistant cell lines. Also, we observed downregulation of SIRT1 (1.1±0.45) and upregulation of miR-34-a (4.3±1.3) (P0.001) in metformin-treated cells. On the other hand, western blot results have shown upregulation of acylated P53 in treated cells. The function of metformin was reversed by SIRT1 inhibitors or the transfection of miR-34-a overexpressing plasmids.

Conclusion: In conclusion, based on this research results, metformin decreases colorectal cancer cell viability and increases the apoptosis process. Additionally, one of the radio sensitivity mechanisms of metformin in colorectal cancer, as time and dose-dependent, is the modulation expression of the p53/miR-34a/SIRT1 loop. Thus, metformin may be useful to treat radiotherapy-resistant colorectal cancer patients.

G-1621

Investigating the effect of the corona pandemic on the pattern of drug consumption in the outpatient prescriptions of one of Islamic Republic of Irans insurance organizations in 2019

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Introduction: The covid-19 pandemic, which in 2020 faced the world and Iran with serious challenges. Challenges that go beyond mere public health challenges. Part of the effect of covid-19 is on the physical health of people, but other sectors such as the economy of families, medical centers and insurances are also affected by the pandemic. In this study, by examining the outpatient prescriptions data of one of Islamic Republic of Iran's insurance organizations and analyzing the pattern of drug consumption according to this prescription, it is possible to first look at the general changes in drug consumption in the country and then to more detailed changes regarding the growth or decline in the consumption of specific drug categories.

Method & material: After accessing the insurance data, it was determined that the total number and cost of the total sales of outpatient prescription drugs in the years 1398 and 1399 as a dependent variable, as well as the number and cost of selected drugs in this research was available in 1398 and 1399 (as well as 1400). Then, in the statistical analysis and comparison, one compares the changes in the pattern of consumption of basic drugs used in Corona (based on the review of the official guidelines for the treatment of Covid-19 in the Ministry of Health, Treatment and Medical Education of the Islamic Republic of Iran) and the other changes in the pattern of consumption of other basic drugs Treatment categories (based on the selection based on the essential medicine list of the World Health Organization) were provided in each one.

Result: contrary to popular opinion, the number of prescriptions and the total number of medicines has decreased from 1398 to the end of 1400. The total volume of prescriptions and the number of drugs at the end of 1400 compared to 1398 has reached about half. However, the overall cost of preparing and consuming these drugs has increased at the end of 1400 compared to 1398 and has surpassed the total volume of 2.000.000.000.000 Rials by about 300.000.000.000.

Conclusion: All drug categories (except for Covid-19) generally decreased in the first six months of facing the pandemic and then increased in the following six months until reaching the last six months of 1400 and resuming the decreasing trend or no change. Most of the findings in this study are consistent with other similar studies in the world and an analysis of economic, social and health events can be considered for each of the trend changes in the research process.

G-1646

Evaluating the effect of gabapentin on dexamethasone–induced depressive behavior in mice

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Introduction: There is significant evidence linking high blood levels of glucocorticoids to depression. It has been suggested that the role of glucocorticoids in facilitating depression relies on the presence of nervous nitric oxide synthase in the hippocampus. Gabapentin has been found to inhibit the depolarization-induced activation of nitric oxide synthase. With this in mind, we aimed to evaluate Gabapentin's efficacy in treating Dexamethasone-induced depression in mice as a potential remedy for depressive symptoms following glucocorticoid therapy.

Method & material: Our study was conducted on male mice (weighing 28±2 g, aged 6-8 weeks), in pharmacology laboratory of Isfahan School of Pharmacy in 2022. The animals were randomly housed in groups of six mice per group. To induce depression, Dexamethasone (15 mcg/kg) was administered subcutaneously for 7 days. Intraperitoneal administration of Gabapentin (10 mg/kg) and Imipramine (10 mg/kg, the reference antidepressant drug) was carried out for 7 days. Control groups received normal saline. On day 8 Following the assessment of locomotor activity, the immobility time was quantified in forced swimming test (FST) as an animal model of despair. Additionally, sucrose preference was measured with a criterion of 65% indicating anhedonia. The results were presented as mean ± standard error of the mean (SEM). All data were analyzed using one-way analysis of variance (ANOVA), followed by Tukey's multiple comparison test. Graphpad Prism 8 software was used for data analysis and graph creation.

Result: During FST, dexamethasone administration led to a significant increase in immobility time (p 0.01) relative to the control group, which indicated depression. Animals treated with gabapentin (10 mg/kg) showed a lower immobility time than the control group (p 0.01). Furthermore, gabapentin administration along with dexamethasone resulted in a reduction of immobility time compared with dexamethasone alone (p 0.001) and control group (p 0.01), demonstrating the antidepressant effect of gabapentin. All these changes occurred without any alteration in the animals' locomotor activity. The Gabapentin-treated groups also exhibited higher sucrose preference percentage that were in line with FST outcomes. The changes in the results induced by imipramine were similar to those observed with gabapentin.

Conclusion: In the present study, gabapentin exhibited antidepressant-like effects in mice undergoing glucocorticoid therapy. Therefore, additional studies are warranted to verify its practical therapeutic potential in clinical psychiatry.

G-1647

Epidemiological Characteristics of brucellosis in Sabzevar city during 1390-1400

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Introduction: One of the most common diseases between humans and animals is brucellosis, which is very important in most parts of the world, especially in developing countries, in terms of public health and its impact on the socio-economic status of society. The increasing trend of cases of this disease, especially during the last two years in Sabzevar city, has caused concerns about the consequences of this disease. Prevention, control or eradication of brucellosis in a country or region requires policy -making as well as accurate epidemiological statistics and information. Therefore, this study was conducted with the aim of the epidemiological Characteristics of brucellosis in Sabzevar city.

Method & material: This cross-sectional study was conducted using the data of 2,319 patients registered in the national portal of the health department of Sabzevar University of Medical Sciences from 1390 to 1400. Data analysis was done using the chi-square test in STATA version 14 software.

Result: Of 2,319 patients with brucellosis, 41.79 cases were women, and the rest were men. The average age of the patients was 37.88 ± 17.74 years. The highest rate of disease was observed in farmers and ranchers (47.78%). In 66.02% of cases, there was a history of local cheese or fresh milk consumption. There was contact with animals in 85.51% of cases. 95.64% of patients were new. The prevalence of the disease increased in the first three years of the study and then decreased, but it increased in 2018, at the same time as the covid-19 epidemic. 91.68% of patients lived in the village. No significant relationship was observed between sex and contact with livestock (P = 0.25). There was a significant relationship between the type of job and contact with livestock (P=0.000). There was a significant relationship between gender and type of disease (P = 0.002).

Conclusion: Most of the disease cases were in people with risk factors; educating people through public media and health centers, separating livestock from humans, vaccinating livestock, correcting nutritional patterns, and removing misconceptions about healthcare in people. It can be effective in reducing the spread of disease. Most of the population lives in villages with direct contact with livestock, so planning to increase livestock vaccination in these areas can be a potential solution to reduce the spread of this disease. Therefore, this disease should be considered a public health priority. Training farmers and ranchers to take preventive measures can play a significant role in controlling brucellosis

G-1655

HIF1α Gene Expression and Atherogenesis: Role of Myo-inositol Supplementation in Patients with NAFLD

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Introduction: Non- alcoholic fatty liver diseases (NAFLD) - the hepatic manifestation of metabolic disorders- is linked to a number of extra-hepatic conditions such as cardiovascular disease. In this context, hypoxia-inducible factor 1-alpha (HIF1α) and its downstream signaling pathway, mediate the progression of atherogenesis, dyslipidemia and inflammation through innate immune cells and macrophages. Recent studies have reported the potent effects of myo-inositol (MI) supplementation against hyperlipidemia, inflammation and oxidative stress. Hence we aimed investigate the effects of MI supplementation on HIF1α gene expression and atherogenic indices in obese patients with NAFLD.

Method & material: The trial design was approved by TBZMED. REC.1400.567 and also registered in IRCT20100209003320N22 . The current double-blinded placebo-controlled randomized clinical trial was conducted on 48 obese patients with NAFLD (grade I and II). By randomly allocation, the patients divided into two groups; MI (4g/day) and placebo (maltodextrin 4g/day) for eight weeks. Pre-and post-intervention, gene expression levels of HIF1α were assessed in peripheral blood mono-nuclear cells (PBMCs) based on real-time polymerase chain reaction (RT-PCR). Total cholesterol (TC), high-density lipoprotein cholesterol (HDL) and TG levels were assessed based on colorimetric-enzymatic methods and then, low-density lipoprotein cholesterol (LDL) and atherogenic indices (including TC/HDL, TG/HDL, LDL/HDL and Non- HDL/HDL) were calculated.

Result: At baseline, there were no significant differences in the studied parameters between the groups. A significant down- regulation in HIF1α gene expression was observed (p=0.011) in MI group in comparison with placebo, after adjusting for the confounders. Despite the significant reduction in TC/HDL (p=0.002), LDL/HDL (p=0.003) and non-HDL/HDL (p=0.003) in the MI group, inter- group changes did not reach to statistical significant levels.

Conclusion: Our results demonstrate that MI supplementation in obese patients with NAFLD could slightly improve atherogenesis through the down- regulation of HIF1α gene. While, more clinical trials are required to confirm these preliminary findings.

G-1663

Comparison of Skull Bone Morphology in CT Scan Images and Dry Bones in a Selected Iranian Population

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Introduction: Pterion is an important point and anatomical landmark that can be seen on the outer surface of the skull where the frontal, parietal, temporal and sphenoid bones meet. Detailed information about this point is useful in pre-surgical planning, especially neurosurgery. Despite the importance of this area, unfortunately, limited studies have been done in this area. Also, all of these studies have been conducted in countries other than Iran, and due to the possibility of anatomical variances in the bones of the Iranian population, the necessity of conducting local studies in this regard is evident.

Method & material: A total of 57 dry bone samples and 120 CT scan samples were studied in normal skulls. Measurements were made in dry bone using a caliper ruler digital and in CT scan images using Syngo fastView software using multi-level reconstruction method. Descriptive statistical studies including mean, standard deviation, comparison of means with T-student test were conducted to investigate the relationship between parameters using spss23 software.

Result: The average parameters measured in millimeters in dry bone and CT scan are as follows the distance from the lateral posterior edge of the frontozygomatic groove to the center of the petrion on the right and left is 3.84 and 3.15, respectively. the distance from the center of the petreon to the posterior middle meningeal branch is 3.53 and 3.53. the distance from the center of the petreon to the anterior middle meningeal branch is 4.22 and 53.00 respectively on the right and left .and the horizontal distance from the center of the petrion to the outer edge of the optic canal was 4.03 and 2.4 on the right and left respectively, the thickness of the bone in the center of the petrion was calculated as 0.62 and 0.62 on the right and left respectively.

Conclusion: In this study, useful information about the parameters of the skull bone and its relation to Pterion was presented, which is useful for surgeons during surgeries that are close to the middle cranial part (temporal fossa) and for pre-operative planning. Surgery is useful, especially neurosurgery. This study showed that the most type of pterion is the sphenoparietal type and the least is the frontotemporal type of the Iranian population. which shows the existence of anatomical variances of the bone compared to others.

G-1665

Investigating INHBA expression as a diagnostic and prognostic biomarker in colorectal cancer patients; a bioinformatics approach

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Introduction: Colorectal cancer is a serious disease that ranks third in terms of both incidence and mortality rates worldwide. Although many genes have been implicated in its pathogenesis, the expression changes of the INHBA gene in colorectal cancer have been less investigated. Therefore, we conducted a study to investigate the role of INHBA in colorectal cancer and its potential as a diagnostic and prognostic biomarker.

Method & material: We used TCGA data from the GDCTCGA database to evaluate changes in INHBA gene expression in colorectal cancer. Transcriptomic (RNAseq) data from the TCGA database was used to identify non-coding RNAs (ncRNAs) whose expression changes can play a role in the development and malignancy of colon cancer. For this purpose, the RNAseq data related to colon cancer (TCGA-coad) was downloaded in raw format (HTseq-Counts) using the TCGAbiolinks package. At first, using the edgeR package, genes with zero or close to zero expression with the CPM criterion 10 (count per million) were identified and removed in 70% of the samples. The data normalization was done based on the TMM method and data transfer was done based on using the limma package, and the groups were compared based on cancer and normal samples. We also analyzed the relationship between INHBA expression and some clinical characteristics. The latest clinical data update was

Result: Our results showed that the expression level of INHBA in cancer samples was significantly higher than in normal samples (p0.001, logFC=3.95). Moreover, the expression level of INHBA was significantly increased in samples with TNM status T4 compared to T1, T2, and T3. Additionally, our Kaplan-Meier analysis indicated that the increase in INHBA expression was associated with poor prognosis of patients (Rank=0.03). Finally, we used ROC analysis to show that INHBA can be considered a diagnostic biomarker (AUC=0.99, P0.001).

Conclusion: In conclusion, our study demonstrates that the expression level of INHBA is increased in colorectal cancer and is associated with a poor prognosis in patients. Furthermore, we suggest that INHBA expression can be used as a diagnostic and prognostic biomarker for the targeted treatment of patients with colorectal cancer. Our findings provide new insights into the pathophysiology of this disease and may help improve patient outcomes through early detection and personalized treatment.

G-1668

The effect of zinc oxide nanoparticles using black seed hydroalcoholic extract on histopathological changes in cisplatin–induced testicular damage in male mice

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Introduction: Cisplatin is one of the common chemotherapy drugs. Although it's many clinical implications in the treatment of cancers, this drug has toxic effects on the male reproductive system. This study aimed to evaluate the effect of zinc oxide nanoparticles using black seed hydroalcoholic extract on histopathological changes in cisplatin-induced testicular damage in male mice.

Method & material: In this study, 30 adult male mice were divided into five groups (n=6): 1) Control, 2) Cisplatin, 3) Cisplatin + black seed extract (received black seed extract at a dose of 200 mg/kg + a single dose of cisplatin), 4) Cisplatin + ZnO NP synthesized using black seed extract (received zinc oxide nanoparticles synthesized using black seed extract at a dose of 200 mg/kg + a single dose of cisplatin) and 5) Cisplatin + ZnO NP (received zinc oxide nanoparticles at a dose of 25 mg/kg + a single dose of cisplatin). Control and cisplatin groups received normal saline for 14 days. Cisplatin injected intraperitonelly on the 5th day of the study (7.5 mg/kg). One day after the last injection, the testis was removed and histopathological changes (tissue damage, changes in the diameter of seminiferous tubes, height of the germinal epithelium and Johnson's score) were evaluated using hematoxylin-eosin staining.

Result: The findings showed that cisplatin causes the destruction of the germinal epithelium, a significant increase in the tissue damage index and a significant decrease in the Johnson score, the outer diameter of the seminiferous tubules and the height of the germinal epithelium compared to the control group (p0.05). Although treatment with zinc oxide nanoparticles and black seed extract in the treatment groups prevented testicular tissue damage, these changes were significant only in the fourth group compared to the cisplatin group (p0.05).

Conclusion: The results of this research showed that the use zinc oxide nanoparticles using black seed extract reduces the cisplatin destructive effects in testicular tissue of mice.

G-1682

A systematic review of the effects of oral zinc consumption on the second-degree burns

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Introduction: Burns usually constitute 5 to 10% of all traumas. The burn treatment is often a long-lasting process and different methods have been suggested to shorten this process. Among these methods, supplementation with some nutrients received great attention. Among the nutrients, several studies assessed the effects of zinc (Zn) supplementation on wound healing. However, findings from these studies are conflicting. Therefore, the current systematic review aimed to summarize available randomized controlled trials (RCTs) on the effects of Zn supplementation on burn recovery by considering human and animal studies.

Method & material: This systematic search was conducted in the online databases including PubMed, Web of science, Scopus and google scholar up to May, 2023 without publication date or language restrictions. RCTs, which evaluated the effect of Zn supplementation on wound healings on human or animal populations were included. Searches and information review were done by both authors independently and was done using "zinc" and "burning patients" keywords. The quality of the animal studies was assessed using the Systematic Review Centre for Laboratory animal Experimentation (SYRCLE) risk of bias tool and Cochrane tool was used to check the quality of human articles.

Result: Out of 71 articles that were found, finally 7 articles met the inclusion criteria for this systematic review. There were two animal and five human articles. All the articles showed a positive effect in some degree. Among them, 6 articles indicated that oral and parenteral Zn improved the wound healing process during the 20 days of examination, but it seems that it would have a better effect in higher dosages. Also, Combination of oral and parenteral Zn supplementation showed better effects. However, one should be cautious about taking very high dosages of Zn.

Conclusion: Considering the reviewed articles, most of them, indicated the positive effect of oral Zn supplementation during hospitalization. Although, Zn supplementation reduced the length of stay in hospital, some complications such as skin adverse effects was reported in some articles. Therefore, it seems necessary to conduct more RCTs to determine the appropriate dosage and duration of Zn supplement.

G-1683

Expression of myelin-related genes in the cerebellum of cuprizone-induced chronic demyelination in C57BL/6 mice

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Introduction: Multiple sclerosis (MS) is a chronic neuroinflammatory disease characterized by myelin and axonal damage in various parts of the central nervous system (CNS), including the cerebellum. Since the cerebellum has a pivotal role in normal motor and cognitive functions, the evaluation of cerebellar myelin content is of particular importance. Cuprizone is an oligodendrocyte-specific toxin that is a widely used animal model to study the demyelination/remyelination process similar to that seen in MS. The present study aims to evaluate the cerebellar tissue myeline-related gene expression in chronic demyelination animals by 12 weeks of cuprizone intoxication.

Method & material: Eight weeks old male C57BL/6 mice were divided into two groups as follows: I: the control (CONT) group received a normal diet and water ad libitum for 12 weeks, and II: the cuprizone (CPZ) group, which received chow containing 0.2% copper-chelator cuprizone for 12 consecutive weeks. At the end of the study, the cerebellum was isolated, and the expression of poly lipoprotein (Plp) and oligodendrocyte transcription-2 (Olig-2) genes were evaluated via quantitative RT-PCR. The relative gene expression was normalized with the GPDH housekeeping gene, and the $p \leq 0.05$ is considered as the significant level.

Result: The molecular analysis data indicate that the expression of Plp and Olig-2 genes in the cuprizone group significantly decreased in the cerebellum compared to the control group ($p<0.01$ and $p \leq 0.0.5$, respectively) at the end of the 12th week of the study.

Conclusion: In conclusion, our findings show that chronic demyelination in the C57BL/6 mice, which is induced by 12 weeks of cuprizone administration, affects Plp and Olig-2 as myelin-related genes in the cerebellum, which may contribute to cerebellar symptoms in MS.

G-1684

Evaluation of parameters of oxidative stress in the cerebellum of the C57BL/6 mouse model of chronic demyelination

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Introduction: Multiple sclerosis (MS) is the most common demyelinating disease with an unknown exact etiology. However, factors like oxidative stress condition can cause myelin and, consequently, neuronal insults in the multiple regions of the central nervous system (CNS). Cerebellar involvement in the demyelinating disease could result in a broad range of issues, such as coordination troubles and disabilities in various mental skills. Cuprizone, a neurotoxin-based copper chelator widely used as an MS animal model, leads to myelin damage through mitochondrial dysfunction and activation of oxidative stress pathways. The purpose of the present study is to assess the cerebellar oxidative parameters in the C57BL/6 chronic demyelination mouse model following 12 weeks of cuprizone induction.

Method & material: Adult male C57BL/6 mice were purchased from the Pasteur Research Institute (Karaj, Iran) and randomly split into control and experimental groups after one week of acclimatization. The control (CONT) group received a normal diet, and the experimental (CPZ) group received chow containing 0.2% cuprizone for 12 continuous weeks. After the twelfth week, the cerebellum was extracted to evaluate oxidative stress markers, including malondialdehyde (MDA), glutathione (GSH), and catalase activity (CAT). The significance level is considered as $p \leq 0.05$.

Result: Evaluation of oxidative stress parameters of the cerebellum indicates that the MDA level, which represents the lipid peroxidation rate in the CPZ group, was significantly higher than the CONT group ($p<0.01$). In addition, the antioxidant capacity of the cerebellum, which was evaluated by measuring GSH and CAT following 12 weeks of cuprizone intoxication, was statistically decreased compared to the CONT group ($p<0.01$ and $p \leq 0.0.5$, in order).

Conclusion: Induction of chronic demyelination in the C57BL/6 mice following 12 weeks of cuprizone exposure via an increase of reactive oxygen species (ROSs), which leads to redux hemostasis-disturbance, may play a fundamental role in the cerebellar pathologies occurring in myelin related disorders.

G-1700

The association between long non-coding RNA MALAT1 and TUG1 with metabolic syndrome among overweight and obese women

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Introduction: Metabolic syndrome is a complex metabolic disorder associated with a set of metabolic abnormalities. Recent studies have addressed the possible role of long non-coding RNAs (lnc-RNAs) in regulating the pathogenesis of metabolic syndrome, and Malat1 and TUG1 are two lnc-RNAs that are probably related to the pathogenesis of disorders associated with obesity and metabolic syndrome. However, studies are limited and contradictory. Therefore, the present study was conducted with the aim of investigating the relationship of these two lnc-RNAs with parameters of metabolic syndrome in obese and overweight women.

Method & material: This Cross-sectional study was conducted on 346 obese and overweight [body mass index (BMI) ≥ 25 kg/m 2] female participants. All participants entered the study after obtaining written informed consent. Anthropometric (height, weight, and body mass index), body composition (fat mass, fat-free mass, and visceral fat) and biochemical and hormonal (fasting blood sugar, lipid profile, insulin, HOMA-IR and liver anzymea) assessments were performed. A quantitative real-time polymerase chain reaction (PCR) was used to evaluate lnc-RNAs Malat1 and TUG1. Also, a 147-question semi-quantitative food frequency questionnaire (FFQ) and the short form of the International Physical Activity Questionnaire (IPAQ) were used to evaluate food intake and physical activity, respectively. All data were analyzed by SPSS software version 23.

Result: We discovered a significant positive correlation of the MALAT1 with FBS (r= 0.152, p =0.026), TG (r= 0.145, p =0.033), SBP (r= 0.136, p =0.036) in crude model, but not in adjusted model after controlling for confounding variables such as age, physical activity, BMI, and energy intake. There was also a significant association between MALAT1 and FBS (β= 0.220, 95%CI=0.027 to 0.413, p =0.026), TG (β= 1.569, 95%CI= 0.128 to 3.010, p =0.033) and SBP (β= 0.336, 95%CI=0.025 to 0.708, p =0.036) in crude model. In addition, we identified a significant association between MALAT1 and FBS (β= 0.382, 95%CI= 0.124 to 0.640, p =0.004), TG (β= 4.767, 95%CI= 2.803 to 6.731, p 0.001) and HDL (β= -0.325, 95%CI= -0.644 to -0.006, p =0.046) in adjusted model.

Conclusion: There was significant positive correlation of the MALAT1 with FBS, TG and SBP. Also, there was a significant positive association between MALAT1 and FBS, TG and a significant negative association between MALAT1 and HDL.

G-1701

The interaction between long non-coding RNA MALAT1 and TUG1 with dietary fatty acid quality indices on visceral adiposity index (VAI) and body adiposity index (BAI) in overweight and obese women

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Introduction: Apart from dietary fat intake quality, long non-coding RNAs (lncRNAs) like taurine upregulated gene 1 (TUG1) and metastasis-associated lung adenocarcinoma transcript 1 (MALAT1), may play regulatory roles in the etiology of obesity, lipogenesis, and adipogenesis, according to recent studies. In the present study, we aimed to examine the interaction between MALAT1 and TUG1 and Cholesterol-Saturated Fat Index (CSI) on the visceral adiposity index (VAI) and body adiposity index (BAI).

Method & material: In this cross-sectional study 346 overweight and obese women (18-68 years), were conducted. A validated and reliable 147-item semi-quantitative food frequency questionnaire (FFQ) to calculate the dietary intake and the indexes of dietary fat quality intake as CSI. Anthropometric values, body composition ad biochemical parameters were measured by standard methods. For assessing MALAT1 and TUG1 based on the criteria of the Minimum Information for Publication of Quantitative (MIQE) standards, a real-time polymerase chain reaction (real-time PCR) was carried out.

Result: The mean (±SD) age and BMI of our participants were 36.568 ± 8.978 years and 31.215 ±4.182 kg/m2 respectively. We observed a positive association with the MALAT1 and VAI in crude (β =3.646, 95%CI = 1.950 to 5.341, p 0.001) and adjusted (β =8.338, 95%CI = 6.110 to 10.566, p 0.001) models. Moreover, after adjustment for age, energy intake, smoking, income, and physical activity, significant positive interaction was observed between MALAT 1 expression and CSI on BAI (β: 0.130, 95%CI: 0.019,0.240, p=0.022) and marginal positive interaction has shown on VAI (β: 0.718, 95%CI: -0.028,1.463, p=0.059). we did not observe any significant interaction between CSI and TUG1 expression on BAI and VAI in both crude and adjustment models.

Conclusion: There was positive association between the MALAT1 and VAI. Moreover, significant positive interaction was observed between MALAT 1 expression and CSI on different adiposity indices including BAI and VAI.

G-1708

Effects of Metformin on radio sensitivity of Breast Cancer cells changing the Expression of miR-21-5p/SESN1 Axis

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Introduction: It has been shown that metformin used by diabetics patients has anti-cancer effects. Metformin makes cancer cells (including breast cancer) more sensitive to radiation, but the exact molecular mechanisms of that are not known. Sesterni1(SESN1) is a member of the growth arrest and DNA damage from a gene family that are involved in different pathways. Some studies showed the role of miR-21-5p in regulating the radio sensitivity of non-small cell lung carcinoma. Since recent studies showed some connections between SESN1 and miR-21-5p expression in the treatment and diagnoses of breast cancer, we decided to investigate the effect of metformin on them and radio sensitivity in breast cancer cells.

Method & material: At first, radiation-resistant breast cancer cells were constructed. Then, the miR-21-5p and SESN1 gene expression rate in resistant and control cells was checked by Quantitative Real-time PCR (qRTPCR). After the cell lines were treated with different concentrations of metformin at various intervals, the cell proliferation and cell death rate were checked by CCK-8 assay and flow cytometry. The Western blot method was also used to confirm the expression of some genes.

Result: The expression of miR-21-5p was up regulated in radiation-resistant cancer cells, while the expression of SESN1 was down regulated. The increase of sensitivity to radiation in breast cancer cells by metformin is based on dose and time. We evaluated miR-21-5p and SESN1 expression in 2 cell lines in different concentrations of metformin and different durations of metformin treatment. Results of qRT-PCR showed that 50 μm metformin after 48h caused a noticeable decrease in miR-21-5p expression (p0.05) and increased SESN1 expression (p .001) in the studied cell lines.

The function of metformin was reversed by miR-21-5p inhibitors or the transfection of SESN1 overexpressing plasmids.

Conclusion: We showed that metformin could cause radio sensitivity, increase apoptosis, decrease cancer cell viability, activate AMPK, and suppurate mTOR in breast cancer cells via modulating the SESN1/miR-21-5p axis. This work provides new potential strategies to improve the efficacy of radiotherapy in breast cancer patients

G-1713

Comparing the accuracy of machine learning algorithms in the diagnosis of ovarian cancer malignancy using blood biomarkers and simulating data using Generative Adversarial Networks (GANs)

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Introduction: In recent decades, remarkable advances in artificial intelligence and Machine learning have made this technology a powerful tool for cancer diagnosis. Given that ovarian cancer is one of the most dangerous and advanced diseases, the use of blood biomarkers and artificial intelligence to diagnose this disease can serve as an accurate and incredibly useful method in this field. In this article, we will delve into more details about the use of blood biomarkers and artificial intelligence in ovarian cancer diagnosis and present a proposed diagnostic model.

Method & material: The data in this study includes 349 individuals with ovarian cancer, for whom 50 blood biomarkers were measured and published by Mi et al. Due to the limited data, generative adversarial networks (GANs) were used to generate new data close to real data. The number of samples increased from 349 to 3115 through simulation. Then, using the Pearson correlation between the biomarkers, the biomarkers that have the greatest impact on the malignancy or benignancy of cancer were selected. Finally, using the Python programming language, a model was developed to detect the malignancy of ovarian cancer.

Result: In this study, after data processing operations, the data was divided into three parts: training, testing, and real data. Then, the data was fed to classical machine learning algorithms, ensemble learning algorithms, and a deep neural network. The results showed that most models had an accuracy of over 80% and an F1 score of over 75%. The best diagnostic model belonged to the gradient boosting algorithm, which had an accuracy and F1 score of 100% in both training and real data, and achieved accuracies of 92% and 90% in testing data, respectively. Additionally, for each of the models, metrics such as F1 score, recall, precision, and AUC, as well as cross-validation, were evaluated. The best model among them was gradient boosting, which had a high diagnostic ability of over 95%.

Conclusion: The use of blood biomarkers and artificial intelligence in ovarian cancer diagnosis can serve as an accurate and incredibly useful method in this field. This approach can act as an important tool for the prevention and treatment of ovarian cancer. For example, it can be used in populations with a higher risk of developing ovarian cancer, such as women with a family history in this area, to increase the chances of success in treatment and prevent the side effects of treatment by increasing the accuracy of diagnosis.

G-1726

Effects of Ginger Supplementation on the Frequency and Severity of Gastrointestinal Symptoms in Patients with Multiple Sclerosis: A Double-Blind Randomized Placebo-Controlled Trial

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Introduction: Gastrointestinal symptoms affect more than 80% of patients with multiple sclerosis (MS). Ginger is known for its gastrointestinal relieving properties. Therefore, as the first study of its kind, we investigated the impact of ginger supplementation on different gastrointestinal symptoms in patients with relapsing-remitting MS.

Method & material: This was a 12-week double-blind parallel randomized controlled trial with a 3-week run-in period. The intervention (n = 26) and control (n = 26) groups received 500 mg ginger and placebo (as corn) supplements 3 times a day along with main meals, respectively. At the beginning and end of the study, the frequency and severity of constipation, dysphagia, abdominal pain, diarrhea, bloating, belching, flatulence, heartburn, anorexia, and nausea were evaluated by the visual analogue scale ranging from 0 to 100 mm. All outcomes were analyzed using the intention-to-treat approach. This clinical trial was registered at the Iranian Registry of Clinical Trials (IRCT) under the registration number IRCT20180818040827N3.

Result: In comparison with placebo, ginger supplementation resulted in significant or near-significant reductions in the frequency (-23.63 ± 5.36 vs. 14.81 ± 2.78, P 0.001) and severity (-24.15 ± 5.10 vs. 11.39 ± 3.23, P 0.001) of constipation, the frequency (-12.41 ± 3.75 vs. 3.75 ± 1.82, P 0.001) and severity (-13.43 ± 4.91 vs. 6.88 ± 2.69, P = 0.001) of nausea, the frequency (-9.31 ± 4.44 vs. 1.56 ± 4.05, P = 0.098) and severity (-11.57 ± 5.09 vs. 3.97 ± 3.99, P = 0.047) of bloating, and the severity of abdominal pain (-5.69 ± 3.66 vs. 3.43 ± 3.26, P = 0.069). However, between-group differences in the frequency or severity of other gastrointestinal symptoms were non-significant.

Conclusion: Supplementation with ginger can improve constipation, nausea, bloating, and abdominal pain in patients with relapsing-remitting MS.

G-1727

Designing a novel peptide-based vaccine candidate against stomach cancer using bioinformatics approaches

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Introduction: Stomach cancer (SC) is one of the most prevalent malignances, which its mortality rank is fourth in the world and first in Iran in 2020. Despite different therapeutic ways for treatment such as chemotherapy, surgery and radiotherapy, SC has high mortality rate among human beings. Immunotherapy is an alternative option that has become a hot topic these days to boost effectiveness of above treatments. Therefore, vaccine development can be beneficial. It has to mention that, vaccine design through bioinformatics approaches is a critical step in vaccine development processes. Bioinformatics plays its role by prediction and recognition essential parts of the vaccine, such as immune response stimulating epitopes, vaccine physico-chemical properties and vaccine-receptor interaction in the body.

Method & material: In this study, several computational and bioinformatics tools were employed to design a novel multi-epitope peptide vaccine. At first, ANTXR1 and CEACAM6 protective antigens and suitable adjuvant were selected. Then the sequences of selected antigens were retrieved from uniport. For each antigen, epitopes that stimulate MHCI and II and linear B-cell were identified. overlapping regions of them and adjuvant were connected to each other with appropriate linkers. Afterward, physicochemical properties, antigenicity, allergenicity and solubility of the designed construct were investigated. Homology modeling was done using C-I-TASSER, then refinement and Validation were performed. IFN- gamma inducing epitopes, and conformational B-cell epitopes were predicted. Eventually, interaction between vaccine and Toll-like receptor 2 (TLR2) was analyzed by molecular docking.

Result: The selection of two above antigens was based on the overexpression of them on the cancer cells and essential role in tumor existence and progression. Also, PorB from Neisseria meningitidis that is a TLR2 agonist was used as an adjuvant. Five epitopes were Obtained from overlaps and connected by linkers. Results were demonstrated that Construct is antigenic, non-allergen and have acceptable stability, aliphatic index and expected half-life. Refinement improves the original model and validation reveals that the overall quality factors in the refined model are higher than original one. B-cell epitopes and IFN- gamma inducing epitopes were recognized. Docking methodology confirmed that the designed vaccine structure could interact properly with TLR2 protein.

Conclusion: by utilization bioinformatics tools, peptide-based vaccine against Stomach cancer was design and seems this vaccine is able to provoke immune responses efficiently because of presence humoral and cellular immunity related stimulating epitopes. It can be considered as a potential candidate vaccine.

G-1733

Investigating the role of Mobile Health in teaching self-care for Psoriasis disease: A systematic review

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Introduction: Psoriasis is a genetic and autoimmune skin disease. One of the most common symptoms of this disease is thick, scaly plaques that may be accompanied by itching and are often seen on the elbows, knees, buttocks, and scalp. The severity of the involvement with this disease is usually estimated by the area index and severity of psoriasis. There is no complete cure for this disease and the use of medications only provides temporary improvement, but it may also cause the recurrence of symptoms. On the other hand, to improve the quality of life of patients with this disease, mobile health technology and self-care education can be used

Method & material: Purpose: The aim of this study was to investigate the role of mobile health in self-care education for celiac psoriasis. Method: This study was conducted as a systematic review and by searching the reliable databases such as PubMed, Web of Science, and Google Scholar search engine. The keywords self-care, psoriasis, and mobile health were examined in related studies between 2020 and 2023. English-language studies that investigated the role of mobile health in teaching self-care for psoriasis disease met the study inclusion criteria. Titles and abstracts were independently reviewed based on eligibility criteria. Then the full text of the articles was evaluated. An identical form with the fields of study title, study objectives, and main findings of the study was used for the data extraction stage

Result: A total of 21 articles were obtained, of which 5 relevant articles were included in the study. The findings of these studies have shown that mobile health technology and self-care education can be useful in the areas of education, empowerment, and improving the quality of life for patients with psoriasis. Patients with psoriasis need to improve their awareness about this disease and self-care methods in order to manage their condition, which can be facilitated through mobile health apps

Conclusion: The results of this study showed that the use of mobile health apps in educating patients with psoriasis will lead to an improvement in their quality of life. However, further studies need to be conducted in this area to increase awareness among patients and their families.

G-1733

Investigating the role of Mobile Health in teaching self-care for Psoriasis disease: A systematic revie

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Introduction:: Psoriasis is a genetic and autoimmune skin disease. One of the most common symptoms of this disease is thick, scaly plaques that may be accompanied by itching and are often seen on the elbows, knees, buttocks, and scalp. The severity of the involvement with this disease is usually estimated by the area index and severity of psoriasis. There is no complete cure for this disease and the use of medications only provides temporary improvement, but it may also cause the recurrence of symptoms. On the other hand, to improve the quality of life of patients with this disease, mobile health technology and self-care education can be used

Method & material:: The aim of this study was to investigate the role of mobile health in self-care education for celiac psoriasis .This study was conducted as a systematic review and by searching the reliable databases such as PubMed, Web of Science, and Google Scholar search engine. The keywords self-care, psoriasis, and mobile health were examined in related studies between 2020 and 2023. English-language studies that investigated the role of mobile health in teaching self-care for psoriasis disease met the study inclusion criteria. Titles and abstracts were independently reviewed based on eligibility criteria. Then the full text of the articles was evaluated. An identical form with the fields of study title, study objectives, and main findings of the study was used for the data extraction stage

Result:: A total of 21 articles were obtained, of which 5 relevant articles were included in the study. The findings of these studies have shown that mobile health technology and self-care education can be useful in the areas of education, empowerment, and improving the quality of life for patients with psoriasis. Patients with psoriasis need to improve their awareness about this disease and self-care methods in order to manage their condition, which can be facilitated through mobile health apps

Conclusion:: The results of this study showed that the use of mobile health apps in educating patients with psoriasis will lead to an improvement in their quality of life. However, further studies need to be conducted in this area to increase awareness among patients and their families.

G-1735

Investigating the diagnosis index during smear–positive pulmonary tuberculosis in the network system in 2021–2016

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Introduction: Pulmonary tuberculosis is a contagious infectious disease In case of no treatment, each patient can infect 10-14 people during their contagious period. Timely diagnosis and treatment of the disease can be considered as one of the most important ways to prevent the disease. Therefore, the purpose of this study is to determine the diagnosis index for pulmonary tuberculosis in the network system in the years .2021-2016

Method & material: The present study was a historical cohort study which was done on 209 people with tuberculosis in Shushtar city And periodic follow-ups have been done throughout the duration of the disease. After extracting the data from the TB Register online software, referring to the patients' electronic files Information such as demographic information, the results of smear tests before treatment, the method of diagnosis, patient referral, and success indicators of extraction treatment were entered into SPSS version 22 software for analysis.

Result: The average age of the patients is 34 years. Among these people, 71.3% were men and 28.7% were women86.1 people were suffering from pulmonary tuberculosis. And 47.8% were diagnosed at +2 and +3 levels And of these, only 24.4% were identified in outpatient units under the network system and the rest by private clinics and inpatient network system. The treatment results were not successful for 19.7% of these patients 5.8% death due to tuberculosis, 4.8% absence from treatment and 8.7% treatment failure were reported.

Conclusion: Since this disease is expected to occur more in older people, , the low average age of the disease indicates the late diagnosis of the disease And it seems that the disease is actively circulating in the community And most of the diagnosed cases have been treated in the hospital. Therefore, it is recommended to actively and purposefully diagnose high-risk groups.

G-1738

Effects of cumin (Cuminum Cyminum L) vaginal cream on sexual function and sexual distress in menopausal women: A triple-blind randomized controlled trial

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Introduction:: Sexual dysfunction is the most important complication associated with postmenopausal vaginal atrophy. Improving vaginal atrophy may improve sexual performance at menopause. This study was conducted to investigate the effect of cumin (Cuminum Cyminum L) vaginal cream on sexual function and sexual distress in postmenopausal women with vaginal atrophy.

Method & material:: This triple-blind randomized controlled clinical trial was conducted on 76 postmenopausal women with vaginal atrophy in Gonabad city in 2022-2023. The inclusion criteria were to have sexual activity; and not having diabetes. Vaginal atrophy was confirmed by a gynecologist before the intervention. The intervention group used vaginal cumin cream, while the control group received placebo cream. Both groups used one gram of the creams nightly for six weeks, then every other night for another two weeks.

Demographic, female sexual function index (FSFI), and female sexual distress scale-revised (FSDS-R) questionnaires were completed by the participants at baseline and at the end of the fourth and eighth week. Data analysis was done using SPSS software. $P<0.05$ was considered significant.

Result:: The results of the study showed no statistical difference between two groups in terms of FSFI and FSDS-R scores at baseline ($p>0.05$). The mean FSFI score was significantly higher in the intervention group compared to the control group at fourth ($p=0.002$) and eighth ($p<0.001$) week follow-up. Also, the mean FSDS-R was significantly lower in the intervention group compared to the control group at fourth ($p=0.003$) and eighth ($p<0.001$) week follow-up

Conclusion:: Vaginal cumin cream improves sexual performance and sexual distress in postmenopausal women with vaginal atrophy; Therefore, this cream can be used to improve sexual performance in women with vaginal atrophy due to its safety and no specific side effects.

G-1750

The Effect of L. Cuminum cyminum Vaginal Cream on Vaginal Atrophy in Postmenopausal Women residing in Gonabad, Iran in 2023

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Introduction: Vulvovaginal atrophy is a common complication among menopausal women and is caused by decrease in the level of estrogen secondary to lack of ovarian follicular reserve. Therefore, 50-60% of women experience the symptoms of vulvovaginal atrophy worldwide. This study aims to investigate the effect of L. Cuminum cyminum vaginal cream on vaginal atrophy symptomss, sexual dysfunction, sexual distress and descriptive assessment of vaginal mucosa.

Method & material: This two-group, triple-blind, randomized clinical trial study was conducted on postmenopausal women with vaginal atrophy in Gonabad city in 2023. Seventy-six postmenopausal women with the diagnosis of vaginal atrophy (subjective symptoms of atrophy) were included in this study. Participants were randomly assigned to experimental and control groups. In the experimental group, participants received 5% L. Cuminum cyminum vaginal cream for 8 weeks (once at night for the first 6 weeks and once every other night overnight for the next 2 weeks). The day-to-day impact of vaginal atrophy (DIVA) were completed by the participants and the vaginal atrophy score (VAS) was evaluated by gynecological examination at baseline, 4 and 8 weeks after the intervention. Data analysis was performed using the SPSS software version 26. P 0.05 was considered significant.

Result: The results of the study showed that the mean score of DIVA($p=0.91$) and VAS ($p=0.62$) were homogeneous in both groups at baseline. The mean DIVA score was significantly lower in the experimental group compared to the control group after 4 ($p<0.001$) and 8 ($p<0.001$) weeks of intervention. Also, mean VAS score was significantly lower in the experimental group compared to the control group after 4 ($p=0.023$) and 8 ($p<0.001$) weeks of intervention

Conclusion: The results of this study showed that L. Cuminum cyminum vaginal cream improves vaginal atrophy symptoms and sexual function; without causing serious complications. Therefore, it can be useful in women with vaginal atrophy.

G-1760

Prediction of cytotoxic activity of quinoline derivatives as possible inhibitors of c–Met using molecular fingerprints

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Introduction:: Cancer is a significant cause of mortality worldwide and the HGF/MET signaling pathways are involved in the highest growth of tumors, which are also important for cell maintenance and proliferation. Mesenchymal-epithelial transition tyrosine kinase receptor (MET, c-MET) deregulation activity has been reported in various cancer types, including lung, gastric, breast, cervical, pancreas, brain, prostate, and thyroid cancer. Recently, a series of quinoline derivatives have been identified with cytotoxic activity as c-Met inhibitors, and most of these compounds have demonstrated considerable potencies with good IC50 values. In this study, the quantitative structure-activity relationship (QSAR) of quinoline derivatives was investigated to design and predict the activity of new and potent c-Met inhibitors using molecular fingerprinting.

Method & material:: All compounds were drawn by MarvinSketch 18.20.0, and optimized with Open Babel 2.4.1. Moreover, PaDEL-Descriptor software was used to generate descriptors. the genetic algorithm (GA) method was used to select efficient variables among the descriptors pool. Multiple linear regression (MLR) was performed in Chemoface software to determine the best correlation between biological activity and chemical structures. Finally, docking and molecular dynamics simulations were used to confirm the interaction of compounds A and B.

Result:: The model statistical parameters were calculated as follows: R2 calc = 0.90 and R2 pred = 0.81. The most efficient activity fragment was identified as the PubchemFP731 fingerprint, which contains a dichlorobenzene group with a coefficient value of 1.34 in compound 10. Additionally, the KRFP4113 fingerprint indicated the presence of a benzylideneamine group with a coefficient value of 0.81 in compounds 23, 48, 52, 53, 55, and 56. The PubchemFP719 fingerprint proposed the presence of a dihydroxybenzene group with a coefficient value of 0.25 in compound 47. The KRFP638 fingerprint was also a good fragment with a coefficient value of 0.19, demonstrating the presence of the 4-methyl piperidinyl group. Based on eight fingerprints from the proposed model and related SMART patterns, two new compounds were designed with pIC50= 6.9 and 7.9.

Conclusion:: In this paper, QSAR, docking, and MD simulation analysis were applied for two sets of quinoline derivatives, and their cytotoxic activity was published against the MKN-45 cancer cell line. Analyzing the results of compounds 10 and 47 showed that other similar derivatives could also exhibit against the MET kinase target, as determined by the similarity search. The recommendations results of this study will be considered in future research aimed at developing more effective anticancer drugs.

G-1763

Anti neuropathic effect of Astaxanthin in a rat model of chronic constriction model

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Introduction:: Neuropathic pain is one of the major problems in society, and despite extensive research in this field, access to an effective and optimal drug with low and negligible side effects has not been possible. Neuropathic pain can be caused by damage to the central or peripheral nervous system and may result from a variety of conditions, including diabetes and metabolic disorders, and physical injuries. Astaxanthin (AST) is a xanthophyll carotenoid with strong antioxidant, anti-inflammatory, and anti-apoptotic activities. Therefore, in this study, we investigated the effects of AST on chronic constriction injury-induced neuropathic pain.

Method & material:: Adult male rats were randomly selected and divided into seven groups with six animals in each group, including: 1) the uninjured group (naive); 2) the negative control group treated with normal saline solution; 3) the positive control group treated with gabapentin (100 mg/kg I.P.; 4) treated with AST (5 mg/kg I.P.); 5) treated with AST (10 mg/kg I.P.); 6) treated with AST (10 mg/kg I.P.) and flumazenil (0.5 mg/kg I.P.); 7) treated with AST (10 mg/kg I.P.) and naloxone (0.1 mg/kg I.P.). Surgery was done by using chromic ligature thread and tying three double knots, 1 mm apart, proximal to the trifurcation of the sciatic nerve, and then checking for pre-clinical signs of animal distress. Behavioural tests were performed on days 1, 3, 5, 7, 10, and 14, and serological and histological examinations were performed on days 7 and 14 after surgery.

Result:: The results of this study showed that intraperitoneal injection of AST improved allodynia, hyperalgesia, and general movement after sciatic nerve injury. It also protected against tissue damage, oxidative stress, and inflammation caused by chronic constriction injury in rats by increasing the level of antioxidative stress factors like catalase and glutathione, while decreasing nitrite.

Conclusion:: The chronic constriction injury model showed that AST has a dose-dependent analgesic effect on neuropathic pain. Considering the strong antioxidative effects of AST, it seems to be an important candidate in controlling neuropathic pain through opioidergic and benzodiazepine pathways.

G-1769

Evaluation of the Effect of Education Based on 7E Learning Cycle Model on Knowledge of Diabetic Foot Ulcer Prevention of Nursing Students

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Introduction:: Prevention of diabetic foot ulcers has important effects on the quality of life of patients. Based on this, the education of nursing students as future nurses can play an important role in reducing the complications of foot ulcers. Therefore, research was conducted to determine the effect of education based on the 7E learning cycle model on the knowledge of diabetic foot ulcer prevention among nursing students.

Method & material:: The present study was a randomized,single-blind,parallel-group clinical trial that was conducted on 98students in the fourth semester of the Bachelor of Nursing course at the Faculty of Nursing and Midwifery Shahid Beheshti University of Medical Sciences in 2022-2023.Convenience sampling was done and random allocation was done with flip the coin.ClassA students were in the experimental group(51people),and classB students were in the control group(47people).Before the implementation of the research educational tool intervention(demographic-questionnaire and Kaya-diabeticfoot-prevention-knowledge-questionnaire),the study samples were given the option to complete the pre-test.Two education sessions from source prevention of diabetic foot ulcer based on the 7E learning cycle model for the participants of the experimental group in the faculty and covered hospitals were held. The control group received conventional education.All participants completed the post-test questionnaires one month after the educational intervention.To analyze the data,SPSSversion-19 software is used,as well as descriptive statistics and Chi-square and independent sample t-tests,non-parametric Mann-Whitney and Wilcoxon-tests.

Result:: There was no statistically significant difference between the two groups in demographic characteristics (p 0.05). The difference in the mean score of diabetic foot ulcer prevention knowledge in the experimental group between the time interval before the implementation of the intervention and one month after its completion was statistically significant (p0.001). Also, in the control group, an increased score of diabetic foot ulcer prevention knowledge is observed, but the difference in the mean score in this group between the time interval before the implementation of the intervention and one month after its completion was not statistically significant (p=0.16).

Conclusion:: Education on the 7E learning cycle model is an effective educational strategy that can increase the knowledge of foot ulcer prevention among nursing students.

G-1979

Evaluation of the relationship between internet addiction and sleep quality in medical students of Gonabad

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Introduction:: The Internet is one of the most important technical innovations in the field of information, and its use in general and specialized fields is increasing at an astonishing rate. On the other hand, Internet addiction is a type of psychological-social disorder, and one of the most common complications of Internet addiction is low quality sleep. The present study was also conducted with the aim of determining the relationship between internet addiction and sleep quality of Gonabad University of Medical Sciences students.

Method & material:: In this cross-sectional study, the research community was all students of Gonabad University of Medical Sciences, 284 of whom were selected by random stratified sampling. Data were collected using a three-part questionnaire, including demographic information form, Kimberly Young Internet Addiction Questionnaire (IAT) and Petersburg Sleep Quality Questionnaire (PSQI). In order to analyze the data, SPSS software version 25 and descriptive statistics such as mean, standard deviation, percentage and frequency and analytical statistics of chi-square, Fisher's exact and ANOVA, independent t and Pearson's correlation coefficient were used.

Result:: About 1.2% (3 people) of the participants had severe internet addiction and 30.4% (79 people) had moderate internet addiction. 57.3% (149 people) of the participants had poor sleep quality and 42.7% (111 people) had good sleep quality. Also, the results showed that there was a significant relationship between Internet addiction and marital status (p0.011) so that 89.3% (159 people) of single people had no Internet addiction. There was also a significant relationship between internet addiction and health faculty (p 0.001). A significant relationship was also found between residence and internet addiction (p 0.001) and dormitory life showed more addiction. And with the increase in internet addiction, sleep problems have increased (p0.001). Therefore, people with severe internet addiction had worse sleep quality than the other groups.

Conclusion:: Considering the results and the adverse effect of internet addiction on sleep quality, it is recommended to provide the necessary training courses in medical sciences universities in order to create a culture and use the internet appropriately and effectively in students. It is also suggested that behavioral and cognitive interventions be carried out with the aim of changing the patterns of internet and computer use

G-1770

Evaluation of prescribing pattern of proton pump inhibitors in hospitalized patients in Urmia Imam Khomeini Hospital

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Introduction:: Proton pump inhibitors (PPIs) are the most potent gastric acid reducer commonly used as stress ulcer prophylaxis agents and gastric related disorders in hospital. Meanwhile, high prevalence of inappropriate prescribing of PPIs in many hospital wards leads to increased financial burden imposed on healthcare systems as well as complications such as Clostridium difficile infection, pneumonia, osteoporosis, and hypomagnesemia in patients. In the current study, we aimed to investigate the prevalence of inappropriate prescribing of PPIs followed by developing standardized guideline to optimize physicians' prescription at our center.

Method & material:: We conducted a prospective cross-sectional study to evaluate the prevalence of inappropriate prescription of oral and intravenous (IV) PPIs in patients admitted to Urmia Imam Khomeini University Hospital over a 3-month period. Demographic data, cause of hospitalization, duration of hospitalization, PPI usage history, route and doses of PPI, and other relevant medical data were collected. Statistical analysis was conducted using IBM SPSS Statistics 26.

Result:: In total, 410 hospitalized patients were included in the study, of whom 224 patients (54.8%) were male and The average age of the patients was 55.63 ± 18.09 years. Out of the 410 patients who were prescribed PPI (92 patients (22.4%) IV form, 318 patients (77.8%) oral form), 190 patients (46.3%) received the medication without any clear indication. A total of 92 patients received IV PPI, with 39 (42.4%) lacking a specific indication. Additionally, among the 318 patients who were prescribed oral PPI, 151 (47.5%) received it without a specific indication. Out of the 410 patients, 79 received PPIs for therapeutic purposes, with 76 (96.2%) considered appropriate. Among the 331 patients receiving PPIs for stress ulcer prophylaxis (SUP), the prescription was considered appropriate for 144 patients (43.5%). Among the patients, 193 individuals (47.1%) had a history of previous PPI use prior to hospitalization.

Conclusion:: Our study revealed that inappropriate prescription of PPIs is common in this medical center. This inappropriate prescribing not only imposes significant costs on the healthcare system but also leads to various complications for the patients. Therefore, it is crucial to increase physicians' awareness of guidelines and optimize drug prescriptions accordingly.

G-1772

Preparation of Photosensitive Hydrogel from Methacrylate Polymers and Evaluation of its Application in the Wound Healing Process

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Introduction:: There is an increasing concern about wound care because traditional dressings such as bandages and sutures can no longer meet current needs. To address these needs, natural polymers have been widely used in modern wound management. In the management of accelerated wound healing, moist environments play an important role. Compared to other scaffolds in different forms, hydrogels can maintain a moist environment in the wound area. Injectable hydrogels have attracted great attention in wound repair. Hydrogel dressing by absorbing the tissue exudates and preserving a moist wound environment accelerates wound healing. Also, hydrogels can apply easily, fill the irregularities in the wound site, adhere to the wound for several days, and having high levels of oxygen permeation, they can facilitate wound healing in the wound.

Method & material:: Here, we developed a visible light crosslinked photopolymerization procedure for methacrylate tragacanth (DETMA). We synthesized photosensitive liquid bandages from methacrylate polymers that can polymerize and convert to hydrogel wound dressing when it is exposed to visible light of available devices such as the light of cellphones that nowadays are popular worldwide. We evaluated the porosity, swelling behavior, and mechanical properties, of the engineered hydrogels.

Result:: The physicochemical properties of DETMA hydrogels with various ratios were investigated, and DETMA hydrogel with a volume ratio of 5%w/v exhibited appropriate gelation time, notable water-retaining capacity, self-recoverable conformal deformation, suitable biodegradability, and good biocompatibility for wound-healing application. Then, on days 5, 10, and 14 after surgery, the rats were sacrificed (12 male Wistar), and the entire wound tissues together with a surrounding rim of normal skin were collected. Significant outcomes were achieved in the DETMA hydrogel-treated group including higher wound closure percentage, more granulation tissue formation, faster epithelialization, and decreased collagen deposition. Biophysical analysis showed that hydrogel led to an increase in the rate of wound contraction (p0.001). The period of epithelialization was shorter (p0.001) in the DETMA hydrogel group than control and gauze group. Histological evaluation on days 5, 10, and 14 substantiated that hydrogel treatment improved wound re-epithelialization, dermal regeneration, blood vessel formation, and collagen synthesis than

Conclusion:: Thus, our results strongly prove that DETMA hydrogel could be a potential wound-healing agent. Therefore, DETMA hydrogel can be considered a promising candidate for wound dressing for rapid and efficient restoration of skin wounds.

G-1773

Computational design of some Orexin receptors antagonists through structure and ligand-based virtual screening

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Introduction:: Insomnia is a sleep disorder characterized by difficulties in falling asleep, staying asleep, or experiencing poor-quality sleep. Traditional insomnia medications commonly belong to either benzodiazepines or non-benzodiazepine hypnotics categories. While these medications can be effective, they may come with undesirable side effects such as daytime drowsiness, tolerance, and dependency. Orexins interact with G protein-coupled receptors, OX1R and OX2R, and disruptions in this system cause sleep disturbances. Antagonists targeting orexin receptors could effectively treat insomnia. These compounds are categorized into single (SORAs) or dual orexin receptor antagonists (DORAs). Research emphasizes DORAs due to their potential for enhanced sleep-promoting effects. The article explores modifying suvorexant with specific OA and OB residues to enhance its effects by targeting the same binding sites as DORAs on orexin receptors. As a result, altered versions of suvorexant's ligands are compared to suvorexant itself, and virtually screened ligands of daridorexant are compared to daridorexant.

Method & material:: The study produced two sets of ligands from their FDA-approved reference structures. Orexin residues, due to their similar site of action, were attached to Suvorexant using two types of amide bonds. Daridorexant was also employed in structure-based virtual screening, resulting in similar structures with a 77% similarity sourced from PubChem. The 3D crystal structure of the OXR2 Protein (PDB ID: 4S0V) was prepared using the protein preparation wizard. Ligands, prepared with LigPrep, were docked into OX2R using the Glide module in XP mode. Pharmacokinetic filters were applied using Qikprop. MM-GBSA calculations were conducted using the OPLS3 force field and the GB/SA continuum VSGB 2.0 solvent model. A 50 ns molecular dynamics simulation was performed in the NPγT ensemble at 300 K and 1 bar, with a surface tension of 4000 bar Å, to assess the stability of the best-docked complex. The entire study utilized the Schrödinger suite 2015.

Result:: Molecular docking simulation and MM-GB/SA analysis showed that the hybrid Drug-Residue of Suvorexant(-NH2)+Gly24-Ala23(OB) displayed the highest glide gscore (-10.367) and MMGBSA dG Bind (-94.89) compared to Suvorexant (-8.884 and -79.95, respectively). Similarly, Compound 117872436 exhibited the highest glide gscore (-8.908) and MMGBSA dG Bind (-89.61) compared to Daridorexant (-8.857 and -83.85, respectively). Furthermore, MD simulation revealed that all mentioned compounds achieved stability after 15 ns of simulations, and consistent hydrogen interactions were observed with Asn324.

Conclusion:: The study revealed significant binding affinity of multiple compounds in the two ligand sets with OX2R. Adding 1-2 residues, like glycine and alanine, to Suvorexant in hybrid ligands demonstrated the potential to enhance this affinity. The stabilization mechanism was revealed through molecular dynamics (MD) simulation, highlighting the significance of continuous hydrogen interactions in all the examined compounds.

G-1777

Apply health behavioral theories to examine students intentions about getting a Covid-19 vaccine

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Introduction: The lack of acceptance of the Covid-19 vaccine by some people has been one of the challenges we have faced during the last pandemic. Therefore, identifying factors that influenced vaccination intention during this pandemic may serve as a basis for developing a more effective education program for future outbreaks. The purpose of this study was to assess the factors causing hesitancy about vaccination against covid-19 using a synthesis of three theories of health behavior, including the Health Belief Model, the Extended Parallel Process Model and the theory of planned behavior. This study can lead to a better understanding of the psychosocial factors underlying vaccine hesitancy and assist public health agencies in developing educational programs.

Method & material: psychosocial responses to the Covid-19 vaccine, assessed with six indices: perceived susceptibility, fear of COVID-19, attitude, self-efficacy, response-efficacy, and perceived severity; and a final section to write down the information participants received about the Covid-19 vaccine. Quantitative data are reported as mean and standard deviation. Shapiro-Wilk test, independent T-test, and Pearson correlation coefficient were used in this study. The significance level was considered to be 0.05.

Result: Results showed that participants' gender, marital status, and education level were associated with their willingness to be vaccinated. Older students scored higher on perceived susceptibility, while women scored higher on fear of COVID-19. PhD students had higher attitudes and perceived vaccine response-efficacy. We also demonstrated the effectiveness of health behavior theories sociopsychological factors predicting people's intention to receive COVID-19 vaccine. The main messages received by our participants about vaccines that have influenced them were: possible future side effects , presence of smart chips in the vaccine , lack of research, evidence, and WHO approval for emergency use , and political issues . These findings can lead to a better understanding of the psychosocial factors underlying vaccine hesitancy and assist public health agencies in developing educational programs specifically designed to promote student awareness of vaccination in pandemic situations.

Conclusion:: For having a successful preventative service, vaccination and immunization is crucial. Therefore, to develop effective interventions that promote the acceptance vaccines, it's important to identify the factors that influence individuals' intentions to be vaccinated. The vaccine hesitancy that occurred during Covid-19 pandemic and the sociopsychological factors associated with this hesitancy, can be a lesson in the future pandemics. Overall, Covid-19 vaccine acceptance is high in Isfahan university of medical science, but still, vaccinate hesitancy is high enough to put people's immunity in a vulnerable position. Our results suggest that some collaboration is needed to address the Covid-19 vaccine hesitancy in women, unmarried students, and less educated people. Health care providers, counselors, and the government need to gain people's trust and lead communication in ways that improve their intention to get vaccinated.

G-1778

Evaluation of Artificial Intelligence Methods to Predict Ectopic Pregnancy: A Systematic Review

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Introduction:: Ectopic pregnancy is one of the most important causes of death of pregnant women in the first 3 months of pregnancy all over the world. Early diagnosis as well as choosing the most appropriate treatment method is very important to prevent possible complications of this type of pregnancy. Currently, the diagnosis of ectopic pregnancy depends on transvaginal ultrasound and continuous serum measurement of human chorionic gonadotropin (HCG). The use of artificial intelligence methods allows the creation of a rational strategy for the diagnosis of ectopic pregnancy.

Method & material: This study was conducted as a systematic review in 2023 by searching reliable PubMed, Scopus, Web of Science, and Google Scholar databases. The keywords Artificial intelligence, Ectopic pregnancy, and Prediction were checked in related studies. English-language studies that used an artificial intelligence method to predict ectopic pregnancy were included. Titles and abstracts were independently reviewed based on eligibility criteria. Then the full text of the articles was evaluated independently. The same form was used to extract data such as the title of the study, the year of publication, the country, the artificial intelligence method used, the objectives of the study and the main findings of the study.

Result:: A total of 838 articles were examined, and after reading the full text of the articles, 10 related articles were included in the study. The results of these studies showed that Artificial Intelligence (SVM) Support Vector Machine and Multilayer Perceptron (MLP) algorithms can be useful to assist gynecologists in making decisions about the early treatment of ectopic pregnancy. Also, the SVM algorithm, which provides results with accuracy, sensitivity, and specificity of 96.1%, 96%, and 98%, respectively, was one of the most useful algorithms for predicting ectopic pregnancy.

Conclusion:: The study's results showed that artificial intelligence algorithms were an efficient method of predicting ectopic pregnancy. Also, these algorithms have helped gynecologists choose the exact treatment method and prevent its subsequent complications.

G-1786

The usage of machine learning for prediction and management of atrial fibrillation after cardiac surgeries, a systematic review

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Introduction:: Atrial Fibrillation (AF), known as the most common cardiac arrythmia, can increase the possibility of blood clot formation due to the abnormal electrical activity that can be created. Prediction the incidence of post-operative atrial fibrillation (POAF), as a meaningful AF risk factor, is an important goal. Additionally, machine learning (ML) which is a new and updated method to predict various diseases, can be useful for clinical and medical features management especially in cardiovascular disorders like AF.

Method & material:: A comprehensive literature search in four major databases (PubMed, Scopus, ISI web of science, and Cochrane library) was performed for the available data. All the full texts were probed. The utilized key words and a mixture of Medical Subject Headings (MeSH) terms were accomplished during the research. Included keywords are cardiac , surgery , atrial fibrillation", "machine learning and so on.

Result:: At the end of process of searching in mentioned databases and title/abstract careful screening, 10 articles were included in this study. Totally, 14019 people were participated in these included studies. Among them, 3346 (23.86%) people experienced POAF. Different types of cardiac surgeries were done for this group of people. Different ML algorithms were performed for prediction of POAF. Decision Tree (DT) (n=5), Logistic Regression (LR) (n=4), and Support-Vector Machine (SVM) (n=4) were the most common ones. Area Under the ROC Curve (AUC) was more than 0.7 in most of the studies.

Conclusion:: In this systematic review, our effort is to figure out that if there is a meaningful co- relation between POAF prediction and ML application based on relevant studies. Due to included researches and studies, we have concluded that 90% of studies support the usefulness of ML application to perform POAF prediction. And also, can be helpful for medical staff and surgeons for management of people with cardiovascular diseases.

G-1796

Speaking and its effect on SpO2, Corona disease and the missing SpO2 ring

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Introduction:: COVID-19 is a viral disease that spread from Wuhan, China. On January 30, 2020, the WHO Emergency Committee announced a global health emergency based on the rising infection rate in East Asia and elsewhere. This disease can cause a wide range of clinical symptoms, including respiratory, gastrointestinal, and neurological disorders for patients. One of the criteria measured in COVID-19 patients is oxygen saturation (SpO2) using pulse oximetry. Although pulse oximetry provides reliable information on arterial blood oxygen saturation, items such as low tissue perfusion, carboxyhemoglobin, methemoglobin, edema, nail polish, especially dark colors such as green, black and blue, black skin, increased blood bilirubin, low temperature, hypotension, carbon monoxide poisoning, cardiovascular disease can cause errors in measuring arterial oxygen saturation. However, do other factors affect oxygen saturation (SpO2)?

Method & material:: In this simple randomized study, 40 hospitalized patients with COVID-19 in one month from 5/12/2021 to 12/6/2021 were selected. Their blood oxygen saturation was measured twice, before and after speaking with 10 minutes apart, by pulse oximetry device.

Result:: Out of 40 patients participating in the study, 26 (65%) were female. The mean age of participants was 54.45 ± 15.19. The youngest patient was 21 years old, and the oldest was 78 years old. The mean percentage of oxygen saturation in these 40 patients was 98 ± 8.4. The nonparametric Wilcoxon test was used based on the number of participants in the study and the abnormality of the data. The Wilcoxon test showed a significant difference between blood oxygen saturation in patients before and after the intervention (Speaking). This significant difference was observed in the index fingers of both hands so that the mean percentage of blood oxygen saturation in the right hand before the intervention (94.30 ± 2.793) was changed to (95.55 ± 2.58) after the intervention (P= 0.000, Z= –4.468). Also, the mean percentage of blood saturation in the left hand before the intervention (94.2 ± 2.791)

Conclusion:: Also, the results of this test showed that the average percentage of blood oxygen saturation while talking in the right hand (14.31) is higher than the amount in silence (6). Also, the average percentage of blood oxygen saturation while talking in the left hand (16.73) is higher than the amount in silent mode (7.5). According to the results of this study, it can be concluded that another factor affecting the rate of oxygen saturation (SpO2) is talking while measuring it. This effect was observed as an increase in oxygen saturation (SpO2) in patients, statistically and clinically meaningful.

G-1797

Investigating the effect of administering lavender essential oil following the administration of cyclosporine or alpha interferon on depressive behavior in mice

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Introduction: Interferon-α (IFN) therapy can result in depressive symptoms by decreasing tryptophan levels which may lead to poor compliance in patients. Furthermore, Cyclosporine (Cyc) is a calcineurin inhibitor used in immunosuppressive therapy which is a leading cause of psychological problems such as depression. Calcineurin inhibitors can induce emotional disorders and depression by inhibiting the mammalian target of rapamycin (mTOR) receptor. The aim of this study was to evaluate whether Lavandula essential oil (Lav) could improve IFN-induced and Cyc-induced depression.

Method & material: Male albino mice were used. First total activity was evaluated by the locomotor test, following the sucrose splash test and then immobility time during the forced swimming test was measured as an indicator of depression. Sucrose preference was measured in order to test anhedonia (65% was taken as a criterion for anhedonia).

Cyc, Lav, and fluoxetine (the reference antidepressant drug) were all administered IP and IFN administered SC. Chronic tests were performed after 6 days of consecutive injections and acute tests after 1 hour.

Result: The mentioned treatments did not lead to noticeable changes in the locomotor activity. IFN increased the immobility time during FST (178.6±10.46 s vs. control 125.8±17.73s; P 0.05) indicating depressive-like effect, and Lav pretreatment decreased it to (83.33±22.17 vs. IFN; P0.01). Sucrose splash grooming time increased from 36.83±6.11s in IFN group to 106.3±9.60 in INF+lav200 group (P0.05). Lav did not cause a significant effect on Cyc-induced depression.

Conclusion: Lav showed a useful effect on reducing depression caused by IFN in mice. The ineffectiveness of Lav on Cyc-induced depression indicates the difference in the mechanism of induction of depression caused by IFN and Cyc. More clinical studies on the antidepressant effect of Lav in patients receiving alpha interferon are necessary.

G-1798

A Recombinant Bispecific Tandem scFv Antibody for Cancer Immunotherapy: Optimizing Expression and Purification, and Evaluation of Its Binding Properties In-vitro

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Introduction: Cancer cells prevent the activation of T-cells through immune checkpoint receptors. Among these receptors are CTLA-4 and PD-1. Various studies have shown that the combined use of CTLA-4 and PD-1 inhibitors is more effective than the use of each alone. Single chain fragment variable(scFv) antibodies offer some advantages over full length antibodies, such as better tumor penetration, fewer side effects, and the possibility to be produced in bacterial cells. However, their functional production has been a challenge due to the misfolding potential. Therefore, in this study, the expression and purification of a Bispecific Tandem scFv Antibody targeting CTLA-4 and PD-1(scFv-BsAb) was optimized and then its binding properties were investigated.

Method & material: E. coli BL21(DE3) cells were transformed with pET28a scFv-BsAb plasmid and were cultured in Luria-Bertani medium. Expression of protein was induced at different conditions by various temperatures and concentrations of Isopropyl β-D-1-thiogalactopyranoside. Cell lysis was done by sonication. For protein purification, two different methods were used: Ni NTA affinity chromatography or solubilization and refolding of inclusion bodies. Protein concentration was measured by Bradford assay. For labeling, the dialyzed protein and fluorescein isothiocyanate (FITC) mixture incubated. To remove the excess dye, the resulting mixture was dialyzed. To determine the labeling efficiency, protein absorption was measured at 280 and 495 nm wavelengths. To investigate the binding ability of antibody, peripheral blood mononuclear cells (PBMCs) and HEK293 (immortalized human embryonic kidney) cells (as a negative control) were cultured. The scFv-BsAb binding properties and ability in competitive inhibition of PD-L1 and B7-1 ligands was investigated by flow cytometry.

Result: According to SDS PAGE analysis, the highest soluble expression of scFv-BsAb was observed at 30°C and 1 mM IPTG. Protein purification by denaturing Ni-NTA chromatography resulted in small amounts of purified protein(0.3 mg), but, by solubilization of inclusion bodies, more amounts of purified protein(5.4 mg) were obtained. Labeling efficiency was 40% and 92 µg/ml labeled protein was obtained. Fluorescent antibody at different concentrations bound to about 8 to 78% of PBMCs, while this percentage was about 0.8 to 10.5% for HEK cells. Moreover, the binding is completely dose-dependent. Competitive inhibition is also dose-dependent and at 14 µg/ml scFv-BsAb, the binding of each ligand decreased from about 26% to 3%.

Conclusion: Evaluating different expression conditions and different purification methods is essential to achieve highest amount and purity of recombinant proteins. According to the results of this study, it seems that for proteins with low soluble expression, solubilization of inclusion bodies and then refolding is a more suitable method. Based on flow cytometry results, the percentage of scFv-BsAb binding to PBMCs is higher than HEK cells, which shows its specificity for these cells (including T cells). The competitive inhibition also indicates its specific binding to CTLA-4 and PD-1 receptors.

G-1804

Predicting relapse in childhood acute lymphoblastic Leukemia using different machine learning algorithms

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Introduction: Leukemia is the most common malignant disease in children. It is caused by abnormal hematopoietic cells and has a very high mortality rate because there is no effective treatment.It leads not only to death, but also to numerous relapses. As result, they incur high diagnostic and treatment costs that place an enormous burden on families and health care systems. Therefore, it is important to predict relapse in this patient. The aim of the present study is to evaluate machine learning algorithms for predicting relapse in pediatric patients with ALL.

Method & material: This retrospective cohort study was conducted on 161 patients with acute lymphoblastic leukemia (ALL) under the age of 16 years who were referred to Taleghani Children's Hospital, Gorgan, between September 1997 and September 2016 and followed up until 2021. Data were collected from the paper-based records. Patient experience of relapse (yes or no) was considered as the outcome variable, and demographic information, laboratory tests, and clinical adverse events were considered as input variables. Due to the imbalance of the data, the SMOTE technique was used to solve the imbalance problem in the first preprocessing of the main data set. Then, three machine learning methods, including decision tree, random forest, and boosting, were used to predict relapse in patients with ALL. The performance of the algorithm was evaluated by cross-validation and reported as mean sensitivity, specificity, accuracy, and area under the curve (AUC). Finally, important variables were determined based on the

Result: Of the 161 patients, 16 had a relapse and 145 did not have a relapse. The mean area under the curve (AUC) of the ML algorithms ranged from 74% to 85%, and the mean accuracy of all algorithms was greater than 74%. Among the three algorithms, the boosting algorithm had the highest mean total accuracy 85%, sensitivity 98%, specificity 73% and AUC 85%. Also, based on boosting was identified time to death, age at diagnosis time, platelets, hemoglobin, white blood cell variables as the most important variables in the relapse in patients with leukemia.

Conclusion: Our results show that the boosting algorithm performs better than two algorithms in detecting relapse in patients with leukemia with respect to all criteria. Although ML models need to be improved further before clinical use, the considerable predictive value of the boosting classifier may have the potential to provide useful information for clinical practice in stratifying chemotherapeutic treatment, thereby promoting a computational treatment perspective.

G-1814

Investigating the effect of aromatherapy of pregnant mothers with the scent of spring orange on the Apgar of newborns at birth in elective cesarean surgery at Motahari Jahrom Hospital.

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Introduction:: Psychological processes have an effect on the health of the fetus. Studies have shown that anxiety before cesarean section by increasing cortisol and adrenaline can lead to disruption of blood supply to the placenta and thus to the fetus. The use of complementary medicine with an intervention approach and with the aim of reducing the level of anxiety and stress in pregnant mothers has attracted the attention of researchers. The present study was conducted with the aim of determining the effect of aromatherapy with spring orange scent on the Apgar of newborns in pregnant mothers undergoing caesarean section.

Method & material:: In a double-blind clinical trial conducted in 2019, pregnant mothers candidates for caesarean section were randomly divided into intervention and control groups (46 people in each group) in a ratio of 1:1. In the intervention group, half an hour before entering the operating room, the mother was asked to inhale cotton soaked with 3 drops of spring orange essential oil with a concentration of 10 for 30 minutes normally and with normal breaths from a distance of 10 cm until entering the operating room. For the control group, cotton soaked with distilled water was used. Apgarnozad score was checked and recorded in minutes one and five after birth. Data using SPSS Ver. 21 cases were analyzed.

Result:: No significant statistical difference was observed between the two control and intervention groups in terms of demographic variables based on the relevant tests. The trend of changes in Apgar score of newborns was significant in the first and fifth minutes, and after the fifth minute in both groups, the Apgar score of all newborns reached 10. Therefore, the comparison of these points was done in these two minutes.The average Apgar score in the first minute after birth in the intervention group was (17.9 ± 529.) and the control group (87.8 ± 0.806), based on the Mann-whitney test, the difference between the two groups was significant (P = 0.039) .The results show that the effect of aromatherapy in pregnant mothers was on the average Apgar score of babies in the first minute.

Conclusion:: The use of complementary medicine methods such as aromatherapy before cesarean section can be effective on the Apgar score as an indicator of newborn health.Probably, aromas increase the secretion of endorphins and enkephalins, leading to a decrease in the level of anxiety and relaxation in mothers, followed by an increase in blood supply to the placenta.

G-1815

A systematic review and meta-analysis of the venous thromboembolism prevalence and related risk factors in patients with Covid-19

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Introduction:: The COVID-19 pandemic, has been associated with pulmonary embolism, and studies have been conducted to investigate the prevalence of thrombotic complications in COVID-19 patients. However, comprehensive and complete results are not yet available. Therefore, this meta-analysis was performed to evaluate the prevalence of venous thromboembolism (VTE) and the factors affecting its incidence in COVID-19 patients.

Method & material:: The study was conducted according to MOOSE standards and reported using PRISMA guidelines. Two independent researchers performed the search in all confirmed online databases, including CINAHL, Web of Science (ISI), and PubMed/Medline, using exact MeSH keywords such as COVID-19, venous thromboembolism, deep vein thrombosis, and pulmonary thromboembolism. The search was not limited by time and also included international publishers such as Wiley online library, Science Direct, and Springer until February 2022. The articles were searched and retrieved in English to remove any potential language bias. quality assessment was performed using the Newcastle Ottawa Scale (NOS). The data were analyzed using STATA12. heterogeneity was assessed and interpreted using Q Cochrane test and the I2 index. to elucidate the causes of heterogeneity between studies, subgroup analyses were conducted. The significance threshold was set at less than 0.05.

Result:: After the comprehensive search, 765 papers were gathered, of which 336 articles were excluded due to duplication. A total of 129 studies were removed for not meeting eligibility criteria, and 214 studies were excluded due to inadequate information, leaving 86 studies in two groups (cohort and RCT) for the final analysis. The analysis of 37 studies showed a 17% prevalence rate of VTE among COVID-19 patients (95% CI=0.13-0.22, P0.0001). The heterogeneity rate in this study was 98.8%, which was statistically significant (P0.0001). Subgroup analyses on geographical localization, showed statistically significant differences emerged in the study results (P0.0001).. In studies conducted in Europe, a prevalence rate of 23% was calculated for VTE among patients with COVID-19 (95% CI=0.15-0.32). In studies conducted in the USA, Asia, and Australia, the prevalence was estimated to be 0.093 (95% CI=0.043-0.16), 0.073 (95% CI=0.21-0.003), and 0.03 (95% CI=0.025-0.04), respectively. The analysis of 49 studies examined the

Conclusion:: The study showed a relatively high prevalence of VTE in COVID-19 patients. Based on the analysis results by geographical area, it can be concluded that racial differences and genetic factors can affect the VTE incidence in COVID-19 patients. Additionally, a history of stroke and cerebrovascular events can be a risk factor indicating the need for prophylactic anticoagulant treatment in these patients.

G-1816

AI in IVF for the youth of the population

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Introduction:: In-vitro fertilization (IVF) has been a powerful reproductive technique that has helped millions of couples achieve their dream of having a child. However, IVF is a complex and costly process that involves multiple steps, and its outcome vary widely depending on various factors. Artificial Intelligence (AI) is capable of predicting accurate outcomes via relating data to each other and considering all parameters. IVF can profit AI in the mean of predicting the outcomes of this reproduction technique.AI aid in selecting the best sperm and eggs for fertilization.The ability of artificial intelligence is not limited to the fertilization stage.Moreover, AI algorithms employ patient medical history, laboratory results, and other data to predict the likelihood of a successful pregnancy. In this study we predict the outcome of IVF through AI in the means of oocyte assessments.

Method & material:: We employed 2,182 clinical data of couples. The data included the patient's information such as: age, previous drug records, sperm morphology, menstrual age, hormone levels, etc. We implemented an AI approach based on deep neural networks (DNNs) to predict the morphological quality of blastocysts based on raw digital images of embryos. Two models were developed: an automatic embryo grading model and a pregnancy prediction model.

Result:: Our study shows that if the data sets are entered regularly and two external validations are used, the accuracy of our neural network can be close to 100%. his IVF data-driven analysis shows that the chance of pregnancy varies from 13.8% to 66.3%. This approach utilizes deep learning, artificial intelligence, and discriminating analysis on bright field microscopy images of mouse oocytes to identify a highly informative deep radiomic signature (DRS) of oocyte morphology. The signature can differentiate morphological changes in oocytes associated with maternal aging with 92% accuracy, which may not be noticeable to an experienced embryologist. These findings indicate that this approach has potential for assessing human oocytes with 98% accuracy.

Conclusion:: Despite challenges such as the need for large amounts of data to train algorithms and validate their accuracy and reliability, AI has the potential to revolutionize IVF by improving success rates, reducing costs, and making treatment more accessible to patients. AI can also help address ethical concerns associated with IVF by identifying embryos with genetic abnormalities or diseases. However, more research is needed to validate AI algorithms and ensure that they are accurate and reliable. Medical expertise should be used in conjunction with AI to ensure that patients receive the best possible care. Standardizing the use of AI in clinics would require clinical trials comparing it to current practices and regulatory approval.and without harm, and all information should be preserved. And the physical information and morphology of the cells remain preserved.

G-1819

Engineering of a core–shell polyvinyl alcohol/gelatin fibrous scaffold for dual delivery of Thymus daenensis essential oil and Glycyrrhiza glabra L. extract as an antibacterial and functional wound dressing

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Introduction:: Wound healing represents a critical challenge in modern healthcare, necessitating the development of innovative biomaterials that can accelerate the regenerative process. In this context, engineering a core-shell polyvinyl alcohol/gelatin fibrous scaffold holds great promise as a multifunctional wound dressing. This study aims to explore the potential of incorporating Thymus daenensis essential oil and Glycyrrhiza glabra L. extract into the scaffold, providing dual benefits of antibacterial activity and enhanced wound healing. The combination of these natural extracts offers a synergistic effect, leveraging their individual therapeutic properties. The fabrication of this novel scaffold allows for controlled release of bioactive compounds, ensuring sustained efficacy and improved wound regeneration. This research paves the way for advanced wound dressings that can revolutionize the field of tissue engineering and regenerative medicine.

Method & material:: Extraction of essential oil was performed using a Clevenger device based on the BP method The solutions of PVA (80%) and gelation (20%) were prepared to fabricate core-shell nano-fibers. Different concentrations of T. daenensis essential oil (5, 10, 15%) were added to the PVA/Gel solutions for the core layer solution. Three concentrations of G. glabra extract (2, 4 and 8%) were added to the PVA/Gel solutions to fabricate shell layer. A double pump electrospinning device performed a co-axial electrospinning process. Characterization of nanocomposite fibers were performed using various tests including Scanning electron microscope (SEM), transmission electron microscopy (TEM), Fourier transform infrared (FTIR) spectroscopy, Water contact angle (WCA) test, Swelling test, In vitro biodegradation, diphenyl-picrylhydrazyl (DPPH) radical scavenging assay, Antibacterial assessments, Cell viability and proliferation, Hemolysis assay, in vitro Whole blood clotting index, Scratch wound healing assay.

Result:: SEM images of the he developed nanocomposite fibers show a monotonic, smooth, and bead-free morphology. The average diameter of PVA/Gel nanofibers was 119 nm and it was observed to increase as the essential oil and extract were added. FTIR technique was used to evaluate the chemical structure of developed nanofiber scaffolds. The core-shell nanocomposite fibers demonstrated promising antibacterial activity against both gram-positive Staphylococcus aureus and gram-negative Klebsiella pneumoniae. Furthermore, the nanocomposite scaffolds promoted proliferation of fibroblasts (L929) and was hemo-compatible in hemolysis and blood clotting assays. Developed nanofibers exhibited effective migration of fibroblasts in in vitro wound healing assays.

Conclusion:: These results substantiated the synergistic effects of licorice extract and thymus essential oil and pose promising potential as materials of choice for wound healing applications. By harnessing the synergistic effects of these natural extracts, this innovative scaffold offers controlled release capabilities and enhanced wound healing properties.

G-1822

The effect of education and telephone follow-up on the caregiver burden of caregivers of patients with COVID-19, a Quasi-Experimental study

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Introduction: Intense transmission and infection of COVID-19 have caused severe stress perceived by patients and their families or caregivers. It makes caregivers experience a variety of complications such as physical, financial, and emotional problems and bear the caregiver burden. Telenursing and educational methods such as telephone education and follow-up are necessary to relieve caregiver burden. This study is aimed to investigate the effect of telephone education and follow-up on the caregiver burden of caregivers of patients infected with COVID-19.

Method & material: This study was a quasi-experimental study conducted on 33 caregivers of patients with COVID-19 in Besat Hospital of Hamadan City of Iran. The samples were divided into control and experiment groups through random block allocation. The experiment group was educated and followed up by phone calls during five half-hour sessions over two weeks, and the control group only received the routine education of the department. Before the intervention, two weeks, and four weeks after the intervention, the samples were evaluated with Zarit Care Pressure Questionnaire.

Result: At the beginning of the study, both groups did not have a statistically significant difference in terms of average caregiver burden. After the intervention, at the end of the second and fourth week, the caregiver burden in the experiment group decreased significantly compared to the control group (P0.001).

Conclusion: Telephone education and follow-up reduce the caregiver burden on caregivers of patients with COVID-19. Therefore, this method can be used to reduce the caregiver burden of patients in healthcare systems.

G-1824

Association between dietary intakes of total, animal and plant protein and the risk of type 2 diabetes in adults: a systematic review and dose–response meta–analysis of prospective cohort studies

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Introduction: While clinical studies indicate that dietary protein may have beneficial effects on glucose homeostasis in type 2 diabetes (T2D), the impact of dietary protein, including whether the protein is of animal or plant origin, on the risk of T2D is uncertain. We conducted a systematic review and meta-analysis to evaluate the associations of total, animal, and plant protein intakes with the risk of T2D, including the impact of protein load.

Method & material: The current article encompasses prospective cohort studies that report relative risk estimates for adults. included studies were identified through a comprehensive search conducted without any time constraints, utilizing online databases such as PubMed/Medline, ISI Web of Science, Scopus, and Google Scholar. data extraction was performed by two independent researchers. the quality of the included studies was assessed using the Newcastle-Ottawa Scale. the analysis involved the conversion of hazard ratios and odds ratios to relative risks to compare the highest and lowest groups in terms of total, animal, and vegetable protein consumption. this was executed using a Random Effect Model. in addition to the main analysis, a subgroup analysis was conducted to identify potential sources of heterogeneity among the studies. furthermore, both linear and non-linear dose-response analyses were performed to elucidate the relationship between dietary protein intake and the incidence of type 2 diabetes.

Result: Sixteen prospective cohort studies, with a total sample size of 615,125 participants and follow-up periods ranging from 3.5 to 32 years, during which 52,342 cases of T2D were recorded, were identified. Intakes of total (pooled effect size: 1.14, 95% CI: 1.04-1.24) and animal (pooled effect size: 1.18, 95% CI: 1.09-1.27) protein were associated with an increased risk of T2D. In both cases, these effects were dose-related – each 20-gram increase in total or animal protein intake was associated with an increased risk of T2D of ~ 3% and ~ 7%, respectively. In contrast, there was no association between plant protein intake and T2D risk (pooled effect size: 0.98, 95% CI: 0.89-1.08).

Conclusion:: These findings indicate that long-term consumption of animal, but not plant, protein is associated with a substantial and dose-dependent increase in the risk of T2D.

G-1826

Separated and combined administration of Folic acid and B6 enhances cognitive function in a rat model of scopolamine–induced neurodegeneration: A behavioral, molecular, and biochemical study

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Introduction: A chronic neurodegenerative disease, Alzheimer's (AD), starts slowly and worsens over time. Psychopharmacological AD models use Scopolamine (SCOP), a muscarinic receptor blocker that impairs cognitive and memory function. Mental well-being and cognitive performance are greatly enhanced by healthy nutrition. Excess or deficiency of some minerals and vitamins can cause amnesia, an early symptom of AD, as well as psychiatric symptoms such as anxiety and depression. In this study, we aimed to assess the effects of separate and combined administration of folic acid (FA) and vitamin B6 (VitB6) on the behavioral, biochemical, and molecular alterations induced by scopolamine.

Method & material: A total of sixty rats were divided into six groups: Control, Vehicle + SCOP, FA (5mg/kg) +SCOP, Vit B6(100 mg/kg) +SCOP, (FA + VitB6) + SCOP, donepezil (DP) + SCOP. The present study used an animal model of AD induced by SCOP (2.5 mg/kg, i.p.) injections for 30 consecutive days. Prior to injection of scopolamine, rats were pretreated with 5 mg/kg FA and 100 mg/kg Vit B6 as well as 1 mg/kg of DP and/or normal saline for 30 days.

Result: Combining FA and Vit B6reversed the damaging effects of SCOP on behavior (better passive avoidance and entry into the open arms of the EPM) and total antioxidant levels. The concentrations of TNF-? and IL1-B in the hippocampus of the FA, Vit B6, and FA plus Vit B6 groups were significantly lower than those in the Veh + scopolamine group (p 0.01). Furthermore, these results indicate that FA and vitamin B6 consumption synergistically reversed the damaging effects of SCOP on behavior tests, total antioxidant levels, and neuro-inflammatory factors more than separated injections.

Conclusion: Here in this study, we showed that administration of Vitamin B6 and FA together has a synergistic effect in ameliorating the behavioral and molecular alterations induced by Scopolamine injection.

G-1829

Investigating the anti-melanogenic effects of synthesized quinol compounds on B16/F10 cancer cell line

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Introduction:: Melanoma accounts for 1.7% of global cancer diagnoses and is the fifth most common cancer in the US. Melanoma incidence is rising in developed, predominantly fair-skinned countries, growing over 320% in many countries during few last years. Additionally, as previous studies have reported, reactive oxygen species (ROS) and mitochondrial dysfunctions induce melanogenesis by increasing various melanogenic factors. The discovery of structurally novel experimental antitumor agents such as quinols with potent and selective activity against germane molecular targets in intractable malignancies represents a challenging endeavor. Although various agents that can prevent pigmentation disorders have been reported, not all agents are safe and effective. We aimed to investigate the inhibitory effects of synthesized quinol compounds on melanogenesis in B16/F10 melanoma cells.

Method & material:: In order to investigate the anti-melanogenic effects of these quinol compounds, B16/F10 melanoma cells were treated with various concentrations of two quinol compounds (1, 10, 20, 50, and 100 µM) in different incubation periods. After that, Cell viability assay (MTT), mitochondrial membrane potential (MMP) test, and ROS production assay were performed in 24 and 48 hours intervals for both compounds. Also, melanin content in 24, 48, and 72 hours, and the relative tyrosinase activity in 48 and 72 hours were measured, respectively.

Result:: MTT test results showed that compound B significantly reduces cell viability at 48 hours (p0.05) and compound A at 24 (p0.01) and 48 hours (p0.001). In the MMP test, the fluorescence intensity of compound B decreased significantly within 24 hours and increased in the case of compound A in 24 and 48 hours. In addition, ROS production of compound B showed a significant increase after 24 and 48 hours, while compound A significantly increased this value after 48 hours (p0.01). Also, both compounds reduced the relative tyrosinase activity and the melanin content in a dose-dependent manner, especially after 48 hours. Compounds A and B were able to reduce melanin content by 25 and 40 percent in 72 and 48 hours, respectively.

Conclusion:: Prolonged exposure to sunlight causes various skin problems. UVB exposure increases oxidative stress, which leads to skin damage, and repeated skin damage leads to the melanoma development. on the other hand, In the treatment of skin pigmentation disorders caused by an excess of melanin, inhibition of the tyrosinase enzyme is by far the most established strategy, as it is able to limit the rate of melanin production in melanocytes. So, it can be suggested that these synthesized quinol compounds could reduce total melanin content, cellular tyrosinase activity, and cell viability in B16 / F10 cells, and have promising therapeutic effects on skin inflammatory diseases such as hyperpigmentation and melanoma. However, we suggest conducting more basic and clinical studies on these compounds to establish these effects.

G-1837

Evaluation of sleep quality among medical students of Rafsanjan University of Medical Sciences during COVID-19 pandemic

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Introduction:: Sleep is a vital physiological behavior observed in humans and animals, occupying a significant portion of our lives. While the exact purpose of sleep remains unclear, its importance for survival is evident, as prolonged deprivation can lead to severe physical and cognitive impairments. Sufficient sleep is crucial for overall health, disease prevention, and optimal brain function, enhancing concentration and memory processes. The COVID-19 pandemic has affected sleep patterns and quality. Studies among Jordanian and Spanish students during the pandemic have reported high prevalence rates of decreased sleep quality. With ongoing challenges due to the pandemic, it is essential to prioritize sleep quality among medical students, who may experience sleep disorders and adverse effects on their well-being.

Method & material:: This study assessed prevalence of decreased sleep quality among medical students at Rafsanjam Medical University during COVID-19 pandemic in 2022. The participants included all medical students from Rafsanjan University of Medical Science, selected based on accessibility. Relevant information such as age, gender, address, education level, marital status, and occupation was recorded. The study utilized the validated and reliable Iranian version of the Pittsburgh Sleep Quality Index (PSQI) questionnaire. Respondents answered a set of 19 Likert scale items, with scores ranging from 0 to 3. A total score above 5 indicated decreased sleep quality. The collected data were analyzed using SPSS software version 20, employing descriptive statistics, chi-square tests, and t-tests for data comparison. The significance level was set at p0.05.

Result:: Out of the 320 participants, 161 were female (50.3%), with a mean age of 21.81 ± 2.780. The majority were single (90%) and in the basic science grade (49.7%). Only 19.4% were employed, while 80.6% were unemployed. Among the participants, 303 (94.7%) had experienced COVID-19, with 3.1% residing in rural areas. The Pittsburgh Sleep Quality Index (PSQI) test was used to assess sleep quality, with a mean score of 5.80 ± 3.17. Weak sleep was reported by 48.1% of students, while 51.9% reported normal sleep. There were no significant gender differences in sleep quality. Rural residents showed significant differences in sleep quality compared to urban residents (p = 0.019). Marital status, student grades, employment status, and history of COVID-19 infection did not significantly affect sleep quality.

Conclusion:: The COVID-19 pandemic has had a notable impact on sleep quality, as evidenced by studies among students. This research examined the prevalence of decreased sleep quality among medical students during the pandemic. Findings showed that a substantial percentage of participants reported weak sleep, with no significant gender differences. However, factors such as marital status, student grades, employment status, and COVID-19 history did not significantly affect sleep quality. Further attention to sleep quality is warranted, especially among medical students facing potential sleep disorders and adverse consequences.

G-1842

Are tumor peptide vaccines beneficial in the treatment of advanced gastric cancer? A systematic review

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Introduction:: Gastric cancer (GC) is the fourth cause of cancer related deaths worldwide and more than one million new cases were reported in 2020. The most cases are diagnosed in an advanced stage, which have limited treatment options, resistance to chemotherapy and poor prognosis. Immunotherapies, such as vaccination has mentioned as a novel treatment modality. However, most of them are currently experimental, some have gone forward to clinical trials. The aim of this study is to investigate whether peptide vaccines have clinical benefits in the treatment of advanced GC.

Method & material:: We searched PubMed, Cochrane Central Register of Controlled Trials (CENTRAL), ScienceDirect and Scopus for relevant studies published from 2000 until June 2023 using combinations of the search terms "gastric", "vaccine", "peptide", "cancer", "advanced" and their MeSH synonyms. Inclusion criteria were the clinical trial studies related to GC and peptide vaccine with full-text access in English. Accordingly, we excluded non–original articles, languages other than English and studies with unclear data description. The study was conducted using the Preferred Reporting Items for Systematic Reviews and Meta–Analyses (PRISMA) guidelines criteria.

Result:: Overall, 8 studies met the inclusion criteria, providing information on clinical trials that evaluated the safety, adverse effects and effectiveness of the tumor peptide vaccines, whether used alone or in combination with adjuvants or other treatments in cancer. In all studies, there were no dose-limiting toxicities or significant systemic adverse effects except injection site reactions. Complete response (CR) was reported in two studies. Safety evaluation demonstrated that in all studies vaccines were well tolerated. All vaccines elicited an immune response in the range 55-100%. According to six of studies that reported the overall survival (OS), this objective was 3.9-14.2 months, whereas the survival time for GC patients receiving the best supportive care is 3–5 months. The highest survival was achieved in vaccines that have VEGFR relating epitopes and one study was reported 100% disease control rate. Seven studies have reported stable disease (SD) in the range of 32-50%.

Conclusion:: Tumor Peptide vaccine therapy was found to be safe and demonstrates significant immune responses (specifically cytotoxic T cell) in patients with advanced GC. These studies show promising results about this treatment option. However, due to the limitation of study in this area, more studies are needed to design vaccine and investigate safety and efficacy of them in cancer field.

G-1875

Multi-epitope chimeric vaccine design against emerging Monkeypox virus via reverse vaccinology techniques- a bioinformatics and immunoinformatics approach

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Introduction: The emergence and re-emergence of infectious diseases pose significant threats to global public health. Monkeypox, caused by the Monkeypox virus (MPXV), has emerged as an alarming concern due to its potential for human-to-human transmission and high mortality rates. Developing an effective vaccine is crucial for controlling the spread of Monkeypox. In this study, immunoinformatic approaches are employed to design a multi-epitope vaccine against the emerging Monkeypox virus. Leveraging the vast amount of genomic and proteomic data, computational tools are utilized to predict potential epitopes capable of eliciting a robust immune response. This rational design approach holds promise for accelerating vaccine development and providing a strategic tool in combating the spread of Monkeypox.

Method & material: Protein sequences were retrieved in the first step. IEDB was used to analyze the B and T lymphocyte epitopes. After analyzing the sensitizing properties, toxicity, antigenicity, and molecular binding, selected epitopes were connected to adjuvants using appropriate linkers, and the vaccine structure was formulated. Immunoinformatics algorithms predicted the secondary and tertiary structures of vaccine. The physical, chemical, and structural properties were refined and validated to achieve the highest stability. The efficacy of the vaccine was assessed by, molecular docking, and molecular dynamic simulations. The vaccine was tested for its ability to interact with TLR3 and TLR4. Lastly, the optimized sequence was placed inside the E. coli PET30A+ vector.

Result: An immunoinformatics evaluation showed that this vaccine is safe, hydrophilic, stable at various temperatures and conditions, and can activate innate immunity by binding to TLR3 and TLR4. Molecular modeling and structural validation ensured high-quality 3D structures of vaccine constructs. Based on various immunological and physiochemical properties and docking scores, MPXV vaccine was selected for further investigation. In silico cloning revealed a high level of gene expression for the MPXV-V vaccine within the bacterial expression system. Immune and MD simulations confirmed the molecular stability of the MPXV vaccine construct, with high immune responses within the host cell. These results may aid in the development of experimental vaccines against MPXV with increased potency and improved safety.

Conclusion: In conclusion, the use of immunoinformatic approaches for designing a multi-epitope vaccine against the emerging Monkeypox virus offers a promising strategy in the fight against this infectious disease. By leveraging computational tools and genomic data, the identification of potential epitopes facilitates the development of an effective vaccine candidate. This approach holds great potential for expediting the vaccine development process and ultimately contributing to the control and prevention of Monkeypox outbreaks.

G-1881

Factors affecting the duration of treatment in functional constipation of pregnant women treated with cassia fistula syrup

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Introduction: Constipation is a common gastrointestinal complaint in pregnancy that occurs in about 11-40% of women. One of the possible reasons for this is that during pregnancy, due to the hormonal effects and the increased pressure of the uterus on the intestines, intestinal movements decrease. Cassia fistula syrup has wide applications as a laxative. So far, no study has been conducted to investigate the factors affecting the duration of treatment with this substance in pregnant women. Therefore, the aim of this study was to find effective factors on the duration of recovery (treatment duration) after starting the treatment with cassia fistula syrup.

Method & material: This study was conducted using clinical trial data of pregnant women with functional constipation in Ayatollah-Rouhani Hospital, Babol. the patients were randomly divided into two groups of 35 people (using permutation blocks) and were subjected to two types of treatment (cassia fistula syrup, standard treatment). Inclusion criteria included age between 17-38 years, gestational age 28-40 weeks, and diagnosis of constipation based on ROME IV criteria. exclusion criteria included high-risk pregnancy (twin pregnancy, Intrauterine growth restriction, history of abortion, placenta Previa, preterm birth, Congenital Abnormalities, Pregnancy hypertension), history of inflammatory bowel disease, rheumatological diseases, bowel surgery, smoking, and drug abuse. patients were followed up for two weeks. The time to recovery for each was evaluated by Kaplan-Meier survival analysis. Factors affecting the duration of treatment were obtained using Cox regression. Data were analyzed using SPSS-v26 software. A p-value less than 0.05 was considered significant.

Result: Out of 70 women (mean age: 28.92±5.95 years) suffering from functional constipation, 61.9% recovered. 94.4% in the group treated with Cassia fistula syrup and 28.6% in the group that received the standard treatment recovered. The time to recovery in the Cassia fistula treatment group was significantly less than the standard treatment group (log-rank p-value=0.001). In this study no significant relationship was found between the variables of age (HR=1.01, p-value=0.839), body mass index (HR=0.99, p-value=0.676), number of previous pregnancies (HR=1.20, p-value=0.344) and physical activity (HR =1.51, p-value=0.298) with the duration of treatment using Cox regression. Only the type of treatment had a significant effect on the time to recovery (HR=12.38, 95%CI: 5.24 to 29.33, p-value0.001). Also, according to the results obtained in this study, the duration of treatment increases by one percent for every year of increasing age of the patient.

Conclusion: Cassia fistula syrup reduces the length of the treatment period. In addition, since the duration of treatment increases with age in the group receiving Cassia fistula syrup, it is suggested to consider a longer duration of treatment in older patients.

G-1889

Investigating the effect of lavender aromatherapy on the accuracy of nursing students in objective structured test

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Introduction: One of the most common problems of nursing students in the clinical environment is the lack of accuracy, which can have negative effects on their learning. Accuracy is considered as a very important factor in clinical jobs, especially nursing, which is related to human lives. Therefore, using methods that can lead to increasing the accuracy of nursing students is very helpful and cost-effective. Regarding the effect of aromatherapy on the accuracy variable, the researcher did not come across a similar study in the target population, that is, students taking the osce test. Therefore, the researchers decided to design and implement a study titled the effect of lavender aromatherapy on the accuracy of nursing students in OSCE test.

Method & material: This study is a two-group clinical trial including a control group and a test group with a pre- and post-intervention design, which measured the effect of aromatherapy on the accuracy of nursing students. In this study, the research environment was the clinical skills laboratory of the Faculty of Nursing and Midwifery of Isfahan University of Medical Sciences. The 6th semester nursing students who met the inclusion criteria formed the research samples. The samples of this research were selected in an easy way and according to the inclusion criteria, and were randomly assigned to two control and test groups. The sample size was 30 people in each group. The tool of data collection included the Toulouse-Piron drawing test. The aromatherapy intervention for the test group was performed with lavender essential oil for 10 minutes after obtaining written informed consent.

Result: SPSS21 statistical software and chi-square, independent t and paired t statistical tests were used to analyze the data.According to the results of the research, the average accuracy score of the students in the pre-intervention test group was 110.10±33.5 with a range of (165.5-11) and in the control group it was 27.99±104.32 with a range of (172-51). After the intervention, the average accuracy score of the students in the test group was 32±152 and in the control group it was 103.77±26.17. The independent t-test showed that after the end of the intervention, the accuracy of the students in the test and control groups had a significant statistical difference with p0.001.

Conclusion: Also, the paired t-test showed that the average accuracy score of the test group students before and after the intervention has a significant difference p=0.001, but the average accuracy score of the control group students before and after the intervention does not have a statistically significant difference.

Inhaling the scent of lavender could increase the accuracy of nursing students, which is consistent with the findings of other studies and can be used as a method to improve accuracy in practical tests of nursing students.

G-1891

The Association between radiological, clinical, and cognitive indices in Multiple sclerosis patients

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Introduction: Multiple sclerosis (MS) is a neurodegenerative disease identified by the extension of plaques throughout the central nervous system. Patients have symptoms, including psychiatric, motor, and cognitive impairment. Investigation of the effect of plaque and brain characteristics on disability and cognitive function in patients with MS is needed so the present study aimed to investigate the interaction between MRI indices and mood disturbances, disability, and cognitive impairment in MS patients.

Method & material: a cross-sectional study with 65 MS patients (46 relapsing-remitting and 19 secondary-progressive) selected through the MS center of Ali-Ibn Hospital in Rafsanjan, Iran was conducted in 2022. Patients diagnosed with MS according to the McDonald diagnostic criteria. Brain MRI were done by a 1.5 T scanner, and extracted volume of plaques and brain and plaque characterization. neurological examination, The Expanded Disability Status Scale evaluation (EDSS), The Multiple Sclerosis Functional Composite (MSFC) and other cognitive and neuropsychological tests (Paced Auditory Serial Addition Test (PASAT), Wisconsin Card Sorting test (WCST), word-pair learning and Mini-Mental State Examination (MMSE)) were performed by our neurologists. Their disability status was evaluated with the EDSS scale, and The MSFC method with more emphasis on limb function and mental processing speed. The relationship between MRI indices and other factors was assessed using Pearson's correlation coefficient (r) and independent t-test. Statistical significance was set at $p \leq 0.05$.

Result: Of the 65 patients, 57 (87.7%) patients were women. The mean and standard deviation of the patient's age was 33.34 ± 8.76 years, and their ages ranged from 18 to 49 years. The result presented a significant difference in the Multiple Sclerosis Functional Composite (MSFC) score between patients who had a plaque in the Basal ganglia and Thalamus (P=0.038); disability was higher in patients with a plaque in the Basal ganglia and Thalamus. Furthermore, illustrated the difference between patients who had T2 FLAIR hyper intense plaques in the brain and no for disability (EDSS) (P=0.025), the total volume of plaques and EDSS score (P=0.002) and depression in patients with T1 black hole plaque in the brain and no (P=0.015). The total volume of plaques showed a correlation with word-pair learning (P=0.045) and PASAT (P=0.017). Brain volume demonstrated a correlation with MMSE (P=0.008) and PASAT (P=0.031).

Conclusion: We found that regional brain plaque, brain, and plaque volumes as measured by MRI are important determinants of cognitive and disability impairment in MS patients.

G-1893

The Association between anthropometric indices in people with cardiovascular disease and stroke: based on Rafsanjan Cohort study

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Introduction: obesity is a main risk for cardiovascular disease (CVD) and stroke. There are different techniques to measure obesity. anthropometric indicators are regarded as the most popular indices that are used for measuring obesity. This study aimed to assess the association between Anthropometric indices in people with cardiovascular disease and stroke in the south of Iran.

Method & material: This cross-sectional study used the data of the Rafsanjan Cohort Study (RCS) in 2022. A total of 9934 subjects were included. Anthropometric measurements and a standardized interview using validated questionnaires containing demographic data, medical history and History of stroke and CVD were done. Anthropometric characteristics were evaluated by a investigator in the morning. Anthropometric characteristics including; height, waist, hip, and wrist circumferences (in cm) and weight (in kg), were taken. Waist circumference (WC) and hip circumference (HC) were measured. Body mass index (BMI) was calculated by dividing the weight (kg) by height squared (m2). BMI was divided into three groups (25, 25-30, and 30). Also, waist-to-hip (WHR), and waist-to-height ratios (WHtR) were calculated by dividing the waist-to-hip and height in cm. WHR, WHtR, and wrist are categorized into quartiles. our study using chi-square (χ^2) for categorical variables and t-test for continuous variables. Statistical significance was set at $p \leq 0.05$

Result: The study population included 4624 males and 5310 females, aged 35-70 years old. 526 males and 505 females had a history of CVD, and 69 males and 84 females had a history of stroke. The odds of stroke increased in participants with quartile 4 of WHtR (OR: 2.00, 95% CI 1.20-3.34). there was a significant relationship between the increased risk of CVD with BMI ≥ 30 (OR: 1.30, 95% CI 1.07-1.59), abnormal WC (OR: 1.21, 95% CI 1.04-1.40), quartile 3 and 4 of WHR (quartile 3 OR: 1.27, 95% CI 1.02-1.60; and quartile 4 OR: 1.60, 95% CI 1.29-1.99) and quartile 2, 3, and 4 of WHtR (quartile 2 OR: 1.31, 95% CI 1.05-1.65; quartile 3 OR: 1.29, 95% CI 1.04-1.61; and quartile 4 OR: 1.54, 95% CI 1.25-1.90). The results show the increase in each anthropometric indices increases the odds of the risk of risk factors for CVD.

Conclusion: We found WHR as the most precise indices for relation with CVD and stroke among anthropometric indices. WHtR was the second important indices useful in the relationship between anthropometric indices with CVD and stroke in our study.

G-1894

The association of pro-inflammatory diet with Diabetes in PERSIAN Cohort of Fasa: A Cross-sectional Study

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Introduction: A healthy diet is one of the leading lifestyle controls in the prevention and treatment of diabetes. In recent years, several studies investigated the negative effects of a pro-inflammatory diet (PID) on healthy metabolism. The present study aimed to investigate the association of PID with diabetes.

Method & material: This cross-sectional study included the eligible participants (n=10138) of the PERSIAN Cohort of Fasa. After excluding participants with missing related data and pregnancy, the data from Food Frequency Questionnaire were used to calculate the Dietary Inflammatory Index (DII), conducted by Shivappa et al. Then, the participants were divided into 4 quartiles (Q1, the most anti-inflammatory; Q4, the most pro-inflammatory). The participants with a history of medication for diabetes or fasting blood sugar ≥ 126 mg/dL (in participants with no history of Diabetes). The quantitative and qualitative variables were reported as mean (standard deviation) and frequency (percent). The mean of DII The unadjusted and adjusted association of PID with diabetes were evaluated using Logistic Regression (Significant level: p-value 0.05). Demographic features (age, years; gender; ethnicity; body mass index, kg/m2; socioeconomic status, Assert index; educational level; physical activity, metabolic equivalent of the task; energy intake, Kcal; marital status, occupational status), medical history.

Result: The mean age of the final studied population (n=9997) was 48.6±9.6 years, including 4502 men (45.0%). Approximately 13.3% of participants had diabetes (n=1331). The mean of DII was significantly higher in the diabetes group (-0.76±1.80 vs. -0.91±1.74; P value: 0.007). Also, unadjusted logistic regression indicated that PID had a significant positive association with diabetes (Odds Ratio, 1.192; 95% Confidence Interval, [1.062, 1.338]; P value, 0.003). But this association was insignificant (Odds Ratio, 0.956; 95% Confidence Interval, [0.842, 1.085]; P value, 0.498), adjusted for age, gender, Ethnicity, body mass index, physical activity, smoking, cardiovascular disease, hypertension, non-alcoholic fatty liver disease.

Conclusion: Like the previous studies, our findings showed that PID has a positive association with diabetes. However, our adjusted model (considering a wide range of covariates in a big sample size, compared with the other studies) indicated that the pure association was insignificant. Therefore, further studies are required to address the association of DII and energy-adjusted DII with diabetes in the future.

G-1897

The effect of Telemedicine on Depression in patients with Heart Failure; A Randomized Controlled Trial

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Introduction: Chronic diseases are one of the most important challenges of health care systems. Among these chronic diseases, cardiovascular diseases have the largest share. In people with heart failure, depression is common and according to studies, it can cause the deterioration of the patient's condition and increase the rate of death. Telemedicine, which is a combination of medical science and information and communication technology, is developing rapidly in chronic diseases such as heart failure. Therefore, the present study was conducted with the aim of the effect of telemedicine on the severity of depression in heart failure patients.
Method & material: This research is a semi-experimental study. Sampling was done in an easy and accessible way, and 60 patients, referring to teaching hospitals in Shahrekord, were gradually included in the study by filling in the consent form and then by random allocation method and using Random Allocation software. They were placed in two control (number=30) and experimental (number=30) groups. Data collection tools included demographic information questionnaire and Hamilton depression questionnaire. For the experimental group, the educational program was conducted in the form of six sessions over the course of a month by phone and SMS for questions and answers, reminding and confirming the contents and trainings. The data were collected before and after the intervention and finally were analyzed using spss21 statistical software based on descriptive and inferential statistics.
Result: The participants included 38 men and 22 women who were in the age range of 35 to 75 years. Based on the results of statistical analysis, the distribution of data was determined to be normal with the Kolmogorov-Smirnov test, and no statistically significant difference was observed in the two groups in terms of demographic variables. The mean and standard deviation of the depression score before the intervention was (18.23 ± 7.78) in the experimental group and (18.97 ± 7.577) in the control group. After the intervention, which changed to (14.20 ± 6.504) in the experimental group and (7.411 ± 17.97) in the control group. (P<001).
Conclusion: Telemedicine is a low-cost intervention and pursues important goals such as: educating and training people in health and care-related fields, as well as reducing costs and supporting services such as Telemedicine care and public health development. The results of the present study showed that remote medical intervention can reduce the severity of depression in heart failure patients.

G-1911

Mobile Dental Care Services and Elderly Oral Health: A Systematic Review

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Introduction: As people age and become more care-dependent, their oral health requirements increase, as access to dental care decreases. Mobile dental services are one of the care approaches that are very useful today; therefore, this study was conducted with the aim of investigating mobile dental services for the elderly by reviewing previous studies.

Method & material: This systematic review was based on a systematic search in Pubmed, Scopus, Web of Science and Google Scholar by keywords of "Mobile dental", "Mobile health", "Oral health", "Elderly" and "Dental care" from 2017 to 2022. 35 articles were received and 14 articles were reviewed. Unavailable articles, preprints, Letter to the editors and non-English articles were excluded from the study. PRISMA checklist was used to evaluate the quality of the article

Result: Some of the mobile dental services for the elderly include the use of intraoral cameras to perform oral examinations (photos from inside the mouth and live videos for diagnostic decisions), a proper schedule for face-to-face treatment if needed, and providing necessary training. In Iran and some countries such as Austria and the countries of the African continent, mobile dental was used very little. Surveys showed that most of the elderly people had a positive opinion about these services, and about half of them had used these services at home and often in sanatoriums after training. Some elderly people may not use these services properly due to their low level of health literacy, impaired mental and functional abilities, living in deprived areas and lack of access to the Internet.

Conclusion: M.dental services have a useful role in the quick diagnosis of oral cavity problems, increasing the level of awareness of the elderly for self-care, improving the state of quality of life and reduction in costs. Surveys show that more efforts are needed to develop up-to-date guidelines for m-dental services.

G-1916

Evaluation of anti-diabetic effects of Marrubium parviflorum on streptozotocin-induced male mice

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Introduction: To evaluate the anti-diabetic activity of Marrubium parviflorum on diabetic male mice

Method & material: METHODS: A total of 40 experimental male mice were divided into 5 groups (G1-G5) to evaluate the anti-antidiabetic activity of methanol extract of Marrubium parviflorum. Diabetes mellitus (DM) was induced in group 2,4 and 5 by a single dose of streptozotocin (STZ), while group 1, as normal control and group 2, as diabetic control also didn't receive any doses of extract. In group 3, non-diabetic mice received 50 mg/kg of extract. In addition to this, the mice in group 4 were given the extract at a dose of 50 mg/kg/day while the mice in group 5 were administered 100 mg/kg/day of extract for 3 weeks. Before the induction of diabetes and then every three days, the body weight and blood sugar of the mice were measured, and two days before the surgery, the oral glucose tolerance test (OGTT) was performed.

Result: Results: the methanol extract of M. parviflorum at 50 and also 100 mg/kg showed beneficial results in improving oral glucose tolerance, serum malondialdehyde (MDA), serum glutamic oxaloacetate transaminase (SGOT) as well as serum glutamate pyruvate transaminase (SGPT). Blood glucose levels were evaluated once a day, demonstrating that a dose of 100 mg/kg resulted in greater regulation of blood glucose levels in mice throughout the experiment (p0.01). in addition to this, the methanol extract at 50 mg/kg reduced blood glucose levels (BGLs) (p 0.05). Histopathological findings in liver tissue showed structure preservation in extract treated groups.

Conclusion: M. parviflorum methanol extract can play a protective and therapeutic role in diabetes by lowering blood sugar, serum MDA levels and serum SGOT and SGPT enzymes and increasing serum TAC.

G-1919

Correlation of Oromandibular Manifestations and Neuropathy in Diabetes Mellitus: A Comparison of Manifestations in DM2 Patients with/without Neuropathy

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Introduction: Oromandibular manifestations are a type 2 diabetes mellitus comorbidity (DM2) including burning mouth syndrome, salivary gland dysfunctions, and periodontal disorders suggested to be associated with neuropathies. Neuropathies, the most common DM2 complications, cause numerous morbidities including oral complications including paresthesia, burning mouth syndrome, dry mouth, and salivary-gland dysfunctions. Although these two develop identical symptoms their correlation is under debate. Oromandibular manifestations are neglected in DM2 patients as physicians focus on other symptoms. We aimed to verify this correlation to inform physicians and patients to consider oral hygiene as well as other DM2 considerations.

Method & material: This analytic cross-sectional study was conducted from January to June 2020. A random sample of 120 participants aged 40-60 from Babol University of Medical Sciences health centers was included into three groups of 40 participants: the diabetics with neuropathy (Group 1), those without neuropathy (Group 2), and the control group (Group 3) consisted of healthy people. The average FPG was 158.88 and 196.08 in group 2 and group 1, respectively (P<0.001). All participants were examined by a neurologist for neuropathies, an endocrinologist for DM2, and a dentist for their oral complications. The confounding variables including other systemic conditions and treatment compliance were controlled using medical histories and physical examinations. Oral manifestations including burning mouth syndrome, salivary gland dysfunction, numbness, paresthesia, and taste change were assessed as well as HbA1c levels, FPS levels, and age. Data were statistically analyzed by chi-square, T-test, and logistic regression in SPSS V.20 (P<0.05).

Result: A total population of 120 participants was included (mean age of 52.57 ± 12.43 in group 3, 55.35±15.17 in group 1, and 52.35±13.62 in group 2). Females consisted of 50% of Group 3, 57.5% of Group 1, and 55% of Group 2. It was found that an increase in FPG levels reduces the risk of burning mouth syndrome (P<0.09, OR=0.95, CI-95%). The chance of paresthesia (P<0.03, OR=13.79, CI-95%) increased in Group 1 while aging (P=0.02, OR=0.81, CI-95%) and high FPG (P=0.07, OR=0.98, CI-95%) can decrease its chance. Group 1 had higher chances of burning mouth syndrome (P<0.02, OR=18.69, CI-95%). The increase in FPG (P<0.058, OR=1.008, CI-95%) and HbA1c (P<0.09, OR=1.33, CI-95%) levels, raised the chance of dry mouth. The chances of parotid gland dysfunction were increased in Group 1(P<0.01, OR=3.85, CI-95%). Moreover, there is a higher chance of periodontal issue incidence in men rather than women (P<0.04, OR=1.82, CI-95%).

Conclusion: Oral manifestations including the burning mouth, salivary-gland dysfunction, and paresthesia in diabetics are associated with diabetic neuropathy suggesting its higher chance of incidence. Therefore, periodic follow-ups are recommended to prevent subsequent oromandibular complications, especially in neuropathic diabetic patients.

G-1921

Impacts of the COVID-19 Pandemic on Violence Against Pregnant Women:A Systematic Review and Meta-Analysis

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Introduction: This systematic review and meta-analysis investigated the prevalence of violence against pregnant women during COVID-19 pandemic based on the available evidence.

Method & material: Medline, Scopus, Web of Science and Google Scholar were searched. All published observational articles from December 2019 to December 2022 were assessed by two independent authors using the "violence, pregnancy, COVID-19" keywords. The quality appriasal of primary studies conducted using the Newcastle - Ottawa Quality Assessment Scale checklist and 10 eligibe articles were included in this review.

Result: After reviewing the articles, the prevalence of violence among pregnant women during the COVID-19 pandemic were estimated to be 23% (95%, CI = 18 to 29%) using the random effect model. Of them, 59% (95%, CI = 13 to 105%) was attributed to verbal-behavioral violence, 30% (95%, CI = 17 to 42%) emotional violence, %14 (95%, (CI = 8 to 20%) sexual violence, and 11% physical violence (95%, CI = 6 to 17%).

Conclusion: The results of the present study indicated the stability of IPV in pregnant women during the COVID-19 pandemic. Moreover, the most common forms of IPV during the COVID-19 pandemic included behavioral-verbal, emotional, physical, and sexual violence, respectively. Given the impact of violence on the health of pregnant mothers and their infants, it is essential to prioritize and identify the high-risk groups that are victims of violence and develop preventive intervention strategies in all countries.

G-1923

Persian risk scoring system for predicting hospital-based mortality between covid-19 patients

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Introduction: Coronaviruses (COVID-19) are highly contagious viruses which cause symptoms ranging from the common flu to severe respiratory symptoms that cause critical illnesses and death. This study aimed to develop a predictive mortality scoring system for inpatients with COVID-19 based on Demographic, clinical, and laboratory characteristics.

Method & material: This study accessed data from open-cohort of Isfahan, Khorshid COVID Cohort (KCC) study, between February and September 2020. 1314 patients with a positive RT-PCR COVID-19 test and 134 death cases were reported. Clinical, and laboratory characteristics were used in logistic regression modeling to detect significant risk factors and develop the scoring system. ROC curve and Yuden criterion was performed to evaluate the efficiency of the risk score developed at identifying patients with high-risk COVID-19-related mortality.

Result: Six variables in the final logistic regression model were associated with outcome (discharged & death). These variables included Age (OR 2.12; 95 % CI, 1.11–4.02), SatO2 (OR 3.97; 95 % CI, 2.23–7.06), Comorbidities (OR 2.04; 95 % CI, 1.15–3.61), WBC (OR 2.26; 95 % CI, 1.23–4.17), AST (OR 2.27; 95 % CI, 1.37–3.76), and BUN (OR 3.19; 95 % CI, 1.90–3.36). Using ROC curve analysis (specificity 86% and specificity 64%) and Yuden criterion (0.484), create a screening score (7) for identification of COVID-19 cases at high risk of mortality.

Conclusion: In conclusion an accurate predictive model using available clinical and laboratory criteria can reduce costs and improve the timing of treatment decisions in the early stages of the disease, especially in the case of COVID19, which spreads very quickly. In this model, high-resolution computed tomography (HRCT) scans of the lung, which have high costs, are not used. We presented an easy-to-use risk scoring system for predicting mortality among covid-19 Persian patients, which can aid in clinical decision making and resource allocation. Our model showed that comorbidities, low level of saturation oxygen (90%), older age, very high or very low levels of AST, WBC, and BUN are significant predictors of COVID19-related mortality rates among Iranian.

G-1928

Strategies to improve of enzymes thermostability

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Introduction: Enzymes are the main catalysts that carry out chemical reactions in cells. The function of enzymes is not limited to cells, but due to their desirable properties such as high activity and stability. Enzyme stability is an interested sized challenge for protein engineers due to its splendid industrial importance. Protein thermostability is a topic of major notice for the biotechnology, pharmaceutical and food industries, in addition to being a consideration for academic researchers studying proteins and is a critical factor for the applicability of a protein. Protein stability plays a critical role during protein evolution both in the laboratory and in nature.

Method & material: This work can be determined by many important structural features, including hydrogen bonds, salt bridges, aromatic π–π interactions, and cation–π interactions. Over the past decade, our understanding of what determines protein stability has drastically increased, resulting in large improvements in the ability to optimize protein stability in silico.

Result: In this review, discussion will focus on factors affecting protein thermostability, strategies to increase temperature stability, Structure level comparison and methods to rigidify flexible sites...These strategies have discovered that enzymes keep their structural stability through numerous forms of non-covalent and covalent interactions.

Conclusion: In the future, with better understanding of protein structure-function relationships and rapid development of in silico bioinformatics and systems biology techniques, we are more likely to see an increased synergy between protein engineering and design strategies to boost thermostability.

G-1931

Early detection of visual complications of type 1 diabetes mellitus in the pediatric population

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Introduction: The aim of our study was to evaluate the prevalence and the relationships of optic dysfunction in children and adolescents with T1DM.

Method & material: This cross-sectional study was done on 76 previously diagnosed diabetic children. The patients were followed using HbA1C and anterior corneal examination by a specialist.

Result: The average age of the T1DM patients was 12.04 ± 3.7 years (range: 4-20) in which, 39 participants (51.3%) were boys. The average HbA1c level was 10.24 ± 2.47 % (range: 4.5-17%). The prevalence of visual complications in the patients was 27 patients (35.5%). The most common visual complication was posterior capsular opacification (19 patients, 24.9%), followed by refractive errors (10.5%), amblyopia (2.7%), pseudophakia and cataract (1.4%, each). Age and duration of diabetes were significantly associated with the overall presence of visual complications and the posterior capsular opacification; however, these two variables were not related to other visual complications.

Conclusion: The rate of ocular complications in the studied population was 35.5%. Considering that the prevalence of ocular complications in diabetic patients studied in Zahedan was higher than other studies; we recommend a screening for visual acuity, cataract, and diabetic retinopathy for T1DM patients at the time of diagnosis and then annually (especially if the disease duration is prolonged).

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G-1953

Diagnostic accuracy of a three-lead portable ECG device for measuring electrocardiogram intervals

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Introduction: Electrocardiography (ECG) is one of the most significant, noninvasive, cheap, and feasible clinical tests for the medical evaluation of cardiovascular diseases. It can provide physicians with a great deal of information about patients. Recent research showed the benefits of patients' self-monitoring for various diseases such as cardiac arrhythmia or screening for QT-interval prolongations in patients receiving provoking drugs. In this study, we sought to Assess the diagnostic accuracy of a three-lead portable ECG (easy ECG) device to measure ECG intervals in comparison with a standard 12-lead ECG

Method & material: In this cross-sectional study, we included 100 patients who were referred to cardiologist's clinics at Mashhad University of medical sciences from 2021-2022. We excluded patients who had ICD or defibrillator devices. To evaluate the validity of this device, the first ECG will be taken by a standard 12-lead device, and immediately, the next ECG taken by the easy ECG device. Then the QT, PR interval, RR, and HR recorded at the beginning, middle, and end of the standard ECG of each patient will be blindly measured by a cardiologist, and it was compared with the measurement of easy ECG software. All information was entered into SPSS version 23. We used Paired t-test to compare parametric quantitative variables and Wilcoxon is used for non-parametric quantitative variables. Also, the Pearson correlation test is used to check the correlation of parametric variables and the Spearman correlation test is used for non-parametric variables.

Result: The present study enrolled 100 patients (49 female,51 male), at a mean age of 50.4 Years. The PR, RR, and QT intervals measured by easy ECG software were 170.3±37.1, 815.3±157.4, and 373.2±48.8 respectively. Based on the Wilcoxon test there were no significant differences between the device and cardiologist measurement (P value 0.05). Also, the spearman test demonstrated a strong coefficient correlation between RR and HR of two evaluations. (p value0.001, r=0.926 and p value0.001, r=0.9 respectively).

Conclusion: It seems that easy ECG device is useful for cardiologists to remote cardiac monitoring and screening their patients.

G-1954

The efficiency of Modified Richmond Score (MRS) in prediction of in-hospital and 6-month mortality and favorable outcome in Traumatic Brain Injury patients: A Cohort study in Emtiaz Hospital of Shiraz, 2016-2020

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Introduction: Objective: Richmond Acute Subdural Hematoma (RASH) Score is a novel promising scale to evaluate the prognosis and chance for mortality among post-evacuated traumatic brain injury (TBI) with subdural hemorrhage (SDH). The present study aimed to investigate the performance of a new version of RASH (without considering loss of consciousness) in predicting short- and long-term mortality and unfavorable outcome in patients with any kind of TBIs. Methods: This retrospective study included 2243 TBI patients admitted to the neurosurgery ward of Emtyaz Hospital, Shiraz, Iran, from February 2016 to January 2020. After the exclusion of participants with missing data, The RASH score (1) was calculated for the remained population without considering their history of loss of consciousness to obtain our new Modified Richmond Score (MRS) (2). Then, the patients were followed up for six-month after admission or until their death.

Method & material: The six-month unfavorable outcome was considered as an extended Glasgow Outcome Scale score of less than 5. After all, A receiver operating characteristic(ROC) curve was applied to investigate the performance, including Area Under Curve(AUC), Sensitivity(Sen), and Specificity(Spec), of MRS in the prediction of a six-month unfavorable outcome, in-hospital mortality, and six-month mortality. The most optimal cutoff of MRS was applied to define high-risk patients and compare the chance of them with the low-risk group for mentioned TBI outcomes using logistic regression (significant level: P-value0.05). Results: Eventually, 2169 participants with a mean age of 39.5±19.2 years (including 1811 men, 83.5%) were studied. The mean of MRS in the studied population was 1.99±1.47 (ranged from 0 to 7), which was significantly higher in patients with six-month unfavorable outcomes (2.96±1.50 vs. 1.53±1.21). ROC curve revealed that the most beneficial cutoff for MRS is 2.5 while predicting a six-month unfavorable outcome (AUC:76.5%, Sen:56.4%, Spec:83.7),

Result: in-hospital mortality (AUC:74.3%, Sen:83.5%, Spec:45.8%), and six-month mortality (AUC:74.6%, Sen:57.6%, Spec:80.3%). Crude Logistic Regression indicated that the patients with high-risk MRS (scored≥3) have a significantly higher chance for six-month unfavorable outcome (OR:6.66, 95%CI: [5.44-8.17]), in-hospital mortality (OR:5.49, 95%CI: [4.40-6.85]), and six-month mortality (OR:5.54, 95%CI: [4.50-6.82]). Also, these positive associations remained significant after adjusting for confounders (six-month unfavorable outcome (OR:5.43, 95%CI: [4.37-6.74]); in-hospital mortality (OR:4.24, 95%CI: [3.34-5.37]); six-month mortality (OR:4.40, 95%CI:[3.52-5.48]).

Conclusion: Conclusion: MRS indicated a promising performance in predicting short- and long-term mortality/unfavorable outcomes without using a history of loss of consciousness. Also, the presented optimal cutoff revealed an independent dramatic association with mortality/unfavorable outcome. Therefore, TBI patients with an MRS score of ≥3 are more likely to require further studies to prevent their mortality and ameliorate their neurological recovery. Also, the patients with MRS score = 2 requires more attention to avoid further complications and the patients with score = 0 or 1 have the least chance of mortality or unfavorable outcome.

G-1957

Cerebrospinal Fluid Neuronal Pentraxin-2 as a Potential Biomarker in Alzheimer s Disease: A Systematic Review and Meta-analysis

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Introduction: The core biomarkers of Alzheimer's disease (AD) -i.e. cerebrospinal fluid (CSF) amyloid-beta and tau- fail to reflect the heterogeneous neuropathology underlying AD. Moreover, in higher ages, changes in these markers overlap with those in cognitively unimpaired. This calls for finding diverse biomarkers that reflect other pathological aspects. Neuronal pentraxin-2 (NPTX-2) is a synaptic protein involved in neuroplasticity and cognitive function. The aim of this study was to evaluate the ability of CSF NPTX-2 levels in differentiating between AD patients and cognitively unimpaired controls.

Method & material: This systematic review followed the PRISMA guidelines and Cochrane systematic review protocols. An extensive search was carried out in online databases including Pubmed, Web of Science, and Scopus, with keywords such as "pentraxin", "Alzheimer's disease", and "cerebrospinal", from May 2023 to June 10, 2023. Google Scholar search-engine was used to identify grey literature. All English observational studies that compared CSF NPTX-2 levels in AD patients and cognitively unimpaired controls were selected. Reviews, conference abstracts, and animal studies were excluded. After removing duplicates, title and abstract screenings and full-text assessments were performed by two researchers, independently. Relevant data were extracted, such as CSF NPTX-2 levels in AD and controls. The Newcastle-Ottawa Quality Assessment Scale for Case-Control Studies was utilized. Using Stata (v.14.2), random-effects meta-analysis was conducted based on standardized mean differences (Cohen's d) of CSF NPTX-2 levels. Heterogeneity of the studies was measured using I^2 and controlled using the leave-one-out approach.

Result: After removing duplicates, 153 studies remained, 26 of which survived title and abstract screening, and underwent full-text assessment. 12 studies were included, comprising 643 AD patients (50.38% female) and 714 cognitively unimpaired controls (56.15% female). Mean age of the patients and controls were 63.65 and 62.28, respectively. 10 studies reported a significant decrease in CSF NPTX-2 levels in AD, one reported a non-significant decrease, and another reported a non-significant increase. Meta-analysis of all eligible studies (n=8, including study subsets) found significantly lower CSF NPTX-2 in AD compared to controls (Cohen's d= -0.78, 95%CI= -1.11, -0.46), with high heterogeneity (I^2=70.2%, p=0.001). However, by applying the leave-one-out approach, heterogeneity was reduced and turned non-significant (I^2=30.1%, p=0.199), while CSF NPTX-2 levels remained significantly lower in AD (Cohen's d= -0.67, 95%CI=-0.89, -0.45).

Conclusion: CSF NPTX-2 levels seem capable of differentiating between AD patients and cognitively unimpaired controls, and may be used as a biomarker to diagnose AD.

G-1958

The effect of glycemic load on the plasma glucose level among healthy individuals: A prospective Cohort study, PERSIAN Cohort of Fasa, 2016-2021

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Introduction: Introduction. Diabetes mellitus is one of the most leading non-communicable diseases that results in multiple complications and economic burdens. Controlling the glycemic load of diet is a promising protection for patients to prevent further complications of diabetes. The present study aimed to compare the change of plasma glucose level among healthy individuals with low- and high-glycemic load (LGL, HGL) in a 4 year follow up. Methods and Materials. In present prospective cohort study, all participants (n=3031) of PERSIAN Cohort of Fasa who were followed up in the second phase of study were included in the study. The participants with missing related data, any diagnosed chronic diseases, or pregnancy during study were excluded. The glycemic index was calculated based on the Food Frequency Questionnaire and categorized into LGL and HGL based on its median.

Method & material: The fasting blood sugar (FBS, mg/dL) from 2016 to 2021 were collected and reported from recorded database of PERSIAN Cohort. The quantitative and qualitative variables were reported as mean (standard deviation) and frequency (percent). The change of FBS were calculated for each participant. The mean of FBS-change was compared between LGL and HGL groups using independent T-test. Age, gender, body mass index, smoking, opium, alcohol, educational status, occupational status, physical activity, marital status, and energy intake were considered as potential covariates (selected based on Stepwise Linear Regression). The association of glycemic load and the change of FBS was evaluated using unadjusted and adjusted linear regression. Significant level was considered as P value 0.05. Results. The mean age of final studied population (n=1194) was 48.5±year, including 597 men (50%). The mean baseline and followed up FBS was 86.5±9.4 and 95.5±22.2 mg/dL.

Result: The mean of FBS change was significantly higher in HGL group (10.4±22.7 vs. 7.6±17.9 mg/dL. The crude linear regression indicated that Glycemic load had a significant positive association with change of FBS (B, 0.014; 95% Confidence Interval, [0.004, 0024]; p value, 0.025). the adjusted linear regression for obesity showed (B, 0.009; 95% Confidence Interval, [0.001, 0.018]; p value, 0.037).

Conclusion: Conclusion. Our longitudinal findings showed that having an uncontrolled high glycemic load in healthy individuals increased the raise of FBS during 5-year follow-up. Therefore, decreasing the glycemic load of healthy individuals would prevent the elevation of plasma glucose and the incidence of diabetes. Further dietary interventions in future studies are required to administrate plasma sugar-lowering diets for healthy individuals and protect them from becoming pre-diabetes or diabetes.

G-1960

The Opioid Use disorder as a moderator of the association between metabolic syndrome and Non- Alcoholic Fatty Liver disease in PERSIAN Cohort of Fasa: A cross-sectional study

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Introduction: Metabolic syndrome (MS) is a cluster of metabolic abnormalities that dramatically causes Non-Alcoholic Fatty Liver disease (NAFLD). NAFLD is a common disorder that ranges from simple steatosis to lethal hepatocellular carcinoma. Therefore, preventing the development of MS to NAFLD is a worldwide priority. Interestingly recent studies showed that Opioid Use Disorder (OUD) ameliorated lipid profile and would be a preventive factor for MS and NAFLD. The present study aimed to investigate the association of OUD with MS and NAFLD, and compare the association of MS and NAFLD in OUD and non-OUD healthy individuals. Method and Material: In this cross-sectional study, all eligible participants of PERSIAN Cohort of Fasa were included (n=10319). The participants with missing related data, a history of comorbidity, or regular alcohol consumption were excluded. The participants with a Fatty Liver Index≥60 were considered as the NAFLD group. Determining the MS criteria was announced by NCEP ATP III

Method & material: (waist circumference: men102cm and women88cm, triglyceride:≥150mg/dl, high-density-lipoprotein: men40mg/dl and women50mg/dl, fasting blood sugar:≥100mg/dl and blood pressure: systolic130mmHg/diastolic85mmHg). Any individual with 3 positive components or more were categorized as MS group. The patients with regular consumption of opium were considered as OUD. Logistic regression was applicated to assess the odds ratio (OR) of associations with and without considering covariates. Demographic features (age, and gender), physical activity, socioeconomic status, education, energy intake, and smoking were considered potent confounding factors. The significant level for both unadjusted and adjusted models was considered as P-value 0.05. Results: The mean age of the final studied population (n=4461) was 51.1±9.8 years including 1380 men (30.9%), 506 OUD (11.3%), 1533 NAFLD (34.4%) and 1360 MS (30.5%). The OUD had a significant negative association with both MS (OR:0.33, CI95%: [0.25-0.43]) and NAFLD (OR:0.48, CI95%:[0.38-0.59]) that remained significant in the case of NAFLD after adjustment (MS, OR:0.82, CI95%:[0.59-1.12]; NAFLD, OR:0.55, CI95%:[0.42-0.72]).

Result: MS has a dramatic association with NAFLD (unadjusted OR:5.42, CI95%:[4.72-6.23], adjusted OR:5.43, CI95%:[4.69-6.29]). Interestingly, this association of MS and NAFLD was multiplied by 2 in participants with OUD (adjusted OR:10.43, CI95%:[5.54-19.3]). While slightly decreased in non-OUD (adjusted OR:5.19, CI95%:[4.46-6.03]).

Conclusion: Although OUD had a negative association with MS and NAFLD, our findings indicated that OUD increased the co-occurrence of MS and NAFLD in individuals with no chronic disease. Therefore, it is a very important concern in individuals with OUD to control the development of MS and prevent further incidence of NAFLD.

G-1962

The Effect of pro-inflammatory diet on Liver Fibrosis: A Longitudinal prospective cohort study on PERSIAN cohort of Fasa, 2016-2021

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Introduction: Daily nutrition provides energy and health for human body. The chronic inflammation caused by some specific nutrients develops systemic diseases, such as inflammatory bowel disease, diabetes, cardiovascular disease, and Liver diseases. Since chronic inflammation is an important part of Liver Fibrosis/Cirrhosis (LFC) pathophysiology, The present study aimed to investigate the causative role of dietary inflammation on the incidence of liver fibrosis. Method and Material: In this prospective cohort study the participants were included from PERSIAN cohort of Fasa (n=10318). The participants with missing related data, pregnancy, ALT(U/L)140, and viral hepatitis were excluded. Liver Fibrosis was calculated based on Age(year)×AST(U/L)/ (Platelet count(〖10〗^9/L)×√(2&ALT(U/L))) (1).The participants with a Fibrosis-4 (FIB-4)≥1.45 was considered as the high risk fibrotic liver group. Dietary Inflammatory Index (DII) was calculated based on the food frequency questionnaires containing 38 dietary components (2). Linear regression was applicated to assess the β of associations of DII with baseline and changes

Method & material: of FIB-4 with and without considering covariates. Demographic qualities (age, and gender), physical activity, socioeconomic status, education, energy intake, and smoking were considered potent confounding factors. Adjusted and unadjusted models were considered significant for a P-value of 0.05.

Results: The mean age of the cross-sectional part of the final studied population (n=9986) was 48.7 ± 9.6 years including 4489 men (44.9%). LFC was associated with inflammation induced by diet in the adjusted and unadjusted models respectively (β: 0.011, CI95%:[0.006-0.016], P0.001), (β: 0.009, CI95%:[0.004-0.014], P0.001). The Positive Changes of Fibrosis-4 were calculated for the longitudinal follow-up study (n=2869); the associations were positive, but insignificant (β: 0.003, CI95%:[-0.007, 0.012], P=0.585).

conclusion: There was a co-occurrence of fibrosis in the pro-inflammatory diet group but the fibrosis was mildly affected by the inflammation caused by the dietary regime. The longitudinal association was however proved to be statistically insignificant. Our findings indicated that DII would be associated with the incidence of LFC which should be addressed in the future studies.

G-1979

Evaluation of the relationship between internet addiction and sleep quality in medical students of Gonabad

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Introduction: The Internet is one of the most important technical innovations in the field of information, and its use in general and specialized fields is increasing at an astonishing rate. On the other hand, Internet addiction is a type of psychological-social disorder, and one of the most common complications of Internet addiction is low quality sleep. The present study was also conducted with the aim of determining the relationship between internet addiction and sleep quality of Gonabad University of Medical Sciences students.
Method & material: In this cross-sectional study, the research community was all students of Gonabad University of Medical Sciences, 284 of whom were selected by random stratified sampling. Data were collected using a three-part questionnaire, including demographic information form, Kimberly Young Internet Addiction Questionnaire (IAT) and Petersburg Sleep Quality Questionnaire (PSQI). In order to analyze the data, SPSS software version 25 and descriptive statistics such as mean, standard deviation, percentage and frequency and analytical statistics of chi-square, Fisher's exact and ANOVA, independent t and Pearson's correlation coefficient were used.
Result: About 1.2% (3 people) of the participants had severe internet addiction and 30.4% (79 people) had moderate internet addiction. 57.3% (149 people) of the participants had poor sleep quality and 42.7% (111 people) had good sleep quality. Also, the results showed that there was a significant relationship between Internet addiction and marital status ($p<0.011$) so that 89.3% (159 people) of single people had no Internet addiction. There was also a significant relationship between internet addiction and health faculty (p 0.001). A significant relationship was also found between residence and internet addiction (p 0.001) and dormitory life showed more addiction. And with the increase in internet addiction, sleep problems have increased (p0.001). Therefore, people with severe internet addiction had worse sleep quality than the other groups.
Conclusion: Considering the results and the adverse effect of internet addiction on sleep quality, it is recommended to provide the necessary training courses in medical sciences universities in order to create a culture and use the internet appropriately and effectively in students. It is also suggested that behavioral and cognitive interventions be carried out with the aim of changing the patterns of internet and computer use.

G-1989

Strategies to improve of enzymes thermostability

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Introduction:: Enzymes are the main catalysts that carry out chemical reactions in cells. The function of enzymes is not limited to cells, but due to their desirable properties such as high activity and stability. Enzyme stability is an interested sized challenge for protein engineers due to its splendid industerial importance. Protein thermostability is a topic of major notice for the biotechnology, pharmaceutical and food industries, in addition to being a consideration for academic researchers studying proteins and is a critical factor for the applicability of a protein. Protein stability plays a critical role during protein evolution both in the laboratory and in nature.

Method & material:: This work can be determined by many important structural features, including hydrogen bonds, salt bridges, aromatic π–π interactions, and cation–π interactions. Over the past decade, our understanding of what determines protein stability has drastically increased, resulting in large improvements in the ability to optimize protein stability in silico.

Result:: In this review, discussion will focus on factors affecting protein thermostability, strategies to increase temperature stability, Structure level comparison and methods to rigidify flexible sites...These strategies have discovered that enzymes keep their structural stability through numerous forms of non-covalent and covalent interactions .

Conclusion:: In the future, with better understanding of protein structure-function relationships and rapid development of in silico bioinformatics and systems biology techniques, we are more likely to see an increased synergy between protein engineering and design strategies to boost thermostability.

G-1996

Investigating the effect of lavender aromatherapy on the accuracy of nursing students in objective structured test

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Introduction:: One of the most common problems of nursing students in the clinical environment is the lack of accuracy, which can have negative effects on their learning. Accuracy is considered as a very important factor in clinical jobs, especially nursing, which is related to human lives. Therefore, using methods that can lead to increasing the accuracy of nursing students is very helpful and cost-effective. Regarding the effect of aromatherapy on the accuracy variable, the researcher did not come across a similar study in the target population, that is, students taking the osce test. Therefore, the researchers decided to design and implement a study titled the effect of lavender aromatherapy on the accuracy of nursing students in OSCE test

Method & material:: This study is a two-group clinical trial including a control group and a test group with a pre- and post-intervention design, which measured the effect of aromatherapy on the accuracy of nursing students. In this study, the research environment was the clinical skills laboratory of the Faculty of Nursing and Midwifery of Isfahan University of Medical Sciences. The 6th semester nursing students who met the inclusion criteria formed the research samples. The samples of this research were selected in an easy way and according to the inclusion criteria, and were randomly assigned to two control and test groups. The sample size was 30 people in each group. The tool of data collection included the Toulouse-Piron drawing test. The aromatherapy intervention for the test group was performed with lavender essential oil for 10 minutes after obtaining written informed consent.

Result:: statistical software and chi-square, independent t and paired t statistical tests were used to analyze the data.According to the results of the research, the average accuracy score of the students in the pre-intervention test group was 110.10±33.5 with a range of (165.5-11) and in the control group it was 27.99±104.32 with a range of (172-51). After the intervention, the average accuracy score of the students in the test group was 32±152 and in the control group it was 103.77±26.17. The independent t-test showed that after the end of the intervention, the accuracy of the students in the test and control groups had a significant statistical difference with p0.001.

Conclusion:: Also, the paired t-test showed that the average accuracy score of the test group students before and after the intervention has a significant difference p=0.001, but the average accuracy score of the control group students before and after the intervention does not have a statistically significant difference. Inhaling the scent of lavender could increase the accuracy of nursing students, which is consistent with the findings of other studies and can be used as a method to improve accuracy in practical tests of nursing students.

G-1997

Expression Pattern of HOXC10, HOXC11, HOXD10, HOXD11 Genes Family During Implantation Window After Salpingectomy In Patients With Hydrosalpinx

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Introduction:: HOX genes are essential regulators of adult endometrial development and differentiation. Evidence suggests that sequence conservation and overlapping expression pattern of the HOX family member genes (Hox paralogs 9–13) is high. HOXA10 is a well-known marker for uterine development and endometrial receptivity. Recently, studies have shown that the highly expressed HOXA9, HOXA11, and HOXD10 genes during implantation window are also involved in the endometrial receptivity. It has proven that pathological inflammation of endometrium in patients with hydrosalpinges inhibits the expression of receptivity molecules and salpingectomy results in statistically significant increase in endometrial HOXA10 gene expression in hydrosalpinx patients. We aimed to investigate the expression of HOXC10, HOXC11, HOXD10, and HOXD11, which are paralogs of HOXA10 and HOXA11 genes before salpingectomy and forth-post treatment cycle in hydrosalpinx patients.

Method & material:: In this prospective study, 10 infertile women, aged 20-40, with moderate to severe hydrosalpinx proven by hysterosalpingography or laparoscopy undergoing salpingectomy from January 2021 to January 2022 were recruited.

All patients had sonovisible hydrosalpinx (diameter 10mm), normal hormonal (AMH1.2 ng/dL), BMI (18–28 kg/m2) and regular menstrual cycle indicated by mid-luteal progesterone levels of 10 ng/mL were included. Ten healthy fertile age-matched women with a history of successful pregnancy considered as control group. Mid–luteal-phase endometrial sampling (by pipelle) performed at the time of surgery and second mid–luteal-phase endometrial sampling was obtained in forth-post treatment cycle. All women signed the informed consent form and did not receive any hormonal medication during the last three months. After endometrial tissues collection, RNA extraction and cDNA synthesis were done. Quantitative mRNA expression of HOXA10 was determined by real-time PCR technique.

Result:: Gene expression profiles of HOXA10, HOXA11and HOXD10 were significantly decreased in hydrosalpinx endometrial tissue compared with control samples. Salpingectomy resulted in significant increase in endometrial HOXA10, HOXA11 and HOXD10 expression levels (P 0.05) . While the expression levels of HOXC10/HOXC11/HOXD11 genes in post-operative tissue were higher than pre-operative samples, but these elevations were not statistically significant. Moreover, there were not significant differences in expression mRNA levels of HOXC10/HOXC11/HOXD11 before and after surgery compared to control group.

Conclusion:: Salpingectomy reverse HOXA10/HOXA11/HOXD10 expression levels which are important for embryo implantation. Expression of endometrial HOXC10, HOXC11 and HOXD11was not altered pre and post-surgery.

G-2000

Photocatalytic removal of cationic dye crystal violet by MIL-101(Fe)@GO heterojunction

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Introduction:: Synthetic dyes are widely used in textile, paper, printing, leather, food, cosmetic and paint industries. Crystal violet (CV) is a synthetic cationic dye that is used in textile and medical industries. The presence of CV in aqueous environment is considered a serious threat to human health and the environment. Therefore, it is essential to remove residual CV from industrial wastewater. The advanced oxidation process (AOP) is an excellent treatment for dye wastewater, which is based on the production of extremely reactive free radicals led to the destruction of pollutants. A particular form of AOPs, photocatalytic oxidation using solar or visible light, has attracted tremendous attention in recent years and as catalysts stable and promising strategies that have acquired great interest. This study was conducted to investigate of removal efficacy of CV from aqueous solutions using promising heterojunctions GO@MIL-101(Fe) under a low-energy LED irradiation.

Method & material:: Metal-organic framework MIL-101(Fe) was synthesized by a solvothermal method. Then, GO@MIL-101(Fe) composite was prepared by a facile co- precipitation method at room temperature. The as-prepared composite was characterized thoroughly in terms of structural, crystalline, optical, compositional, and textural properties and used to remove CV by one factor at a time method. Additionally, the influence of important variables in the process i.e., pH, catalyst dose, dye concentration, light irradiation time, as well as the reusability of the catalyst was studied.

Result:: The obtained results of characterization showed regular geometric morphology of MIL-101(Fe) crystals and the successful composition with graphene oxide. The GO@MIL-101(Fe) composite achieved a 35% improvement in CV removal compared to pristine MIL-101(Fe). Also, experimental studies showed a direct relationship between pollutant degradation with pH and catalyst dosage. The increase in pH from 4 to 10 was associated with an increase in efficiency from about 43.2 to 60%. Furthermore, as the dosage increased from 0.25 to 1 g/L, the efficiency increased from 44.4 to 63.1%. In addition, by increasing CV from 10 to 50 mg/L, the removal efficiency decreased by 10%. Comparing the dye removal in dark conditions, and under LED irradiation showed that a 12% of the removal efficiency was attributed to the catalytic degradation. The reusability tests indicated that the composite is stable in consecutive use-reuse cycles.

Conclusion:: The novel composite GO@MIL-101(Fe) demonstrated a promising dye removal properties under ultra-low power consumption LED light and suggests as a viable option for water reclamation.

G-2004

Engineering a multi-epitope chimeric vaccine against brucellosis using advanced immunoinformatics approaches

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Introduction:: Brucellosis is rather common in comparison with other parts of the world and is mostly observed in blood donors. The disease remains an overlooked zoonosis globally. Brucellosis is very hard to treat and has re-emerged due to the human immunodeficiency virus (HIV). Design of immune-mediating agents appears to be a promising venue to prevent brucellosis. This study used complex computational approaches to develop a strong multi-epitope vaccine for human brucellosis using major protein antigens involved in its bacterial immunopathogenesis.

Method & material:: Major antigens such as multiple OMPs, BtpB, BhuA, 7α-HSDH, and FliC were selected and retreived in FASTA format. The sequences were entered in CTLPred and Immune Epitopes Data Base (IEDB) to predict T- and B-cell epitopes. Next, linkers were used to join epitope sequences. Vaccine sequences were shuffled using an automated python program we created and automatically inputed to the RaptorX tool to rapidly model the protein and assess percentage of beta-sheets and alpha helixes. Best model was selected and assessed for physicochemical parameters and immune features such as hydropathicity, antigenicity, and half-life. Moreover, agarose gel simulation and cloning by snapgene was conducted. Codon adaptation in E. coli K12 strain was performed by JCat. The 3D model was docked with TLR3, TLR4, and TLR8 and simulated in blood by Groningen Machine for Chemical Simulations (GROMACS). Finally, immune simulation of the vaccine with 3 injections (1 initial and 2 booster dosages)

Result:: A vaccine chimera with 584 aminoacids and multiple B-cell and T-cell epitopes was created using an iterative algorithm. Briefly, our designed vaccine showed favorable Ramachandran plot profile with over 95.84% of residues located within generously allowed and allowed regions. Docking scores with patchdock were corroborated by a negative binding energy calculated by autodock vina. Also, GRAAVY analyses showed the vaccine was mildly hydrophilic. GROningen MAchine for Chemical Simulation (GROMACS) analyses indicated a stable root mean square deviation (RMSD) and a low root mean square fluctuations RMSF (4 nm) for the whole residue range of vaccine. Also, gyration and visualization analyses indicated the vaccine did not unfled. Molecular mechanicms generalized born surfaced analysis (MM-GBSA) energy analyses showed favorable WCA, SASA, and total binding energies (negative, -108.4 KJ/mol). Population coverage analyses showed the vaccine could be affective for 98% of global population, based on analysis for 27 most common MHC-I/II alleles

Conclusion:: In this study, we designed a vaccine against brucellosis using a novel approach recruiting many antigens that play a significant role in pathogenicity. It is suggested that future studies perform preclinical wet lab validation and clinical studies to further explore utility of this novel immunotherapy option.

G-2011

Novel Anthropometric Indices as Predictors of Metabolic Syndrome: A Cross-sectional Study from Isfahan Cohort Study

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Introduction:: Visceral obesity and body fat distribution have an impact on the risk of Metabolic Syndrome (MetS). While body mass index (BMI) has traditionally been used as a measure of obesity and metabolic risk, it has limitations in predicting MetS in normal-weight individuals or those with varying metabolic profiles. New anthropometric indices have shown to be promising in detecting metabolic syndrome and its components more accurately. In this study, we will explore the discriminative power of new anthropometric indices in predicting MetS.

Method & material:: Cross-sectional data of sociodemographic, biochemical and anthropometric indices were collected from 6504 participants. These data were originally extracted from the Isfahan Cohort Study (ICS), a population-based prospective cohort study that includes adults aged 35+ residing at central Iran. The lipid accumulation product, visceral adiposity index, body roundness index, waist-to-height ratio, abdominal volume index, body adiposity index, body mass index, weight-adjusted-waist index, Waist-to-Hip Ratio, deep-abdominal-adipose-tissue, and a body shape index were calculated. Each anthropometric index was classified as quartiles. The mean and standard deviation of MetS variables were analysed by comparison of column means. Receiver-operating characteristic curve was used to estimate the discriminative power of anthropometric indices for MetS and its components. The area under the curve (AUC) for each index was calculated. The optimal cut-off point for each anthropometric index was derived according to the best sensitivity and specificity for the diagnosis of MetS by the Youden index.

Result:: Our results demonstrate that the aforementioned anthropometric indices have favourable association with MetS and its components. According to AUC values determined using ROC curves LAP (Lipid accumulation product) was the most accurate predictor of MetS (AUC=0.849, sensitivity=84.31, specificity=73.07). VAI (Visceral adiposity index) ranked in the second position after LAP to predict MetS (AUC=0.838, sensitivity=83.11, specificity= 70.37). WHtR (Waist-to-height ratio) and BRI (Body roundness index) demonstrated an acceptable level of accuracy for predicting MetS. Furthermore, the ROC curves of WHtR and BRI overlapped and had the same area under the curve (AUC=0.804). This indicated that WHtR and BRI have comparable MetS prediction skills. ABSI (A body shape index) had the lowest AUC, demonstrating that ABSI has the lowest diagnostic accuracy for MetS. The derived cut-points for LAP, VAI, WHtR, and BRI were 64.65, 2.68, 0.59, and 5.30 respectively.

Conclusion:: LAP was the most reliable indicator of MetS and VAI was the next most accurate predictor of MetS. However, according to the complicated calculation of VAI, it is recommended to use LAP instead. BRI and WHtR demonstrated an acceptable level of accuracy and ABSI had the lowest diagnostic accuracy for MetS.

G-2021

The Value of Ultrasonography in Diagnosis of Carpal Tunnel Syndrome

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Introduction:: Carpal tunnel syndrome (CTS) is the most commonly diagnosed neuropathy caused by the entrapment of a peripheral nerve. The diagnosis is generally based on the patients' history, physical examination, and electromyography (EMG) findings. Ultrasound imaging has been recently employed as a reliable and cost-effective method in diagnosing CTS

Method & material:: This diagnostic cross-sectional study was conducted on patients with the history and clinical symptoms of CTS referred to the orthopedic clinic of Shahid Sadoughi Hospital, Yazd, Iran, during 2018-2019. Patients were divided into severe, moderate, and mild groups based on their severity of CTS according to the results of EMG and nerve conduction velocity (NCV) tests. The participants' demographic information and examining their clinical severity of CTS according to the Boston criteria, ultrasonography was performed. The cross-section area (CSA) and transverse diameter of the nerve were measured at the mid-forearm, proximal and distal boundaries of the flexor retinaculum, carpal tunnel cross-section, and carpal bones. Finally, by using SPSS version 16, the results were compared among the study groups.

Result:: sensitivity and specificity of the median nerve CSA were 87.5 % and 81.7 % in the right wrists as well as 95.5% and 70% in the left wrists, respectively. The sensitivity and specificity of the median nerve width were 100 % and 74.1 % in the right wrists as well as 79.5% and 58.3% in the left wrists, respectively. An increase of the carpal tunnel CSA was significantly associated with the severity of CTS.

Conclusion:: Ultrasonography can be employed as a method with high sensitivity and specificity in the diagnosis of CTS. It also can solve the diagnostic problems due to the weakness of other diagnostic methods, especially EMG-NCV.

G-2022

Neonatal maternal separation increases ache response in adulthood: In–Vivo

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Introduction:: Maternal separation is a widely accepted model for studying the effect of stress on long-term behavioral changes and other complaints. The social environment plays a critical role in shaping the brain and programming behavior throughout life. Experiencing stressful events during early life can negatively affect the development of neural transmission systems, such as circuits, which are involved in developing a response to painful stimuli. Thus, our study was to evaluate pain sensitivity, under different stimuli in adult male mice that had undergone early-life maternal separation.

Method & material:: Pregnant NMRI mice were purchased from the Pasteur Institute of Iran and were housed in a temperature-controlled room with ad libitum access to water and food. Maternal separation was performed daily for 3 hours from postnatal day 2–15, for up to 2 weeks.

Hot plate test: mice were placed on a 52 °C heated plate. The time last to lick the fore paw, hind paw or jump were measured. We considered the cut-off time of 20 s to avoid any tissue injury.

Mechanical allodynia test: Mice are placed in a dark box with a wire grid bottom through which the von Frey filaments were applied and the right hind paw withdrawal response was measured.

Statistical analysis: Data were expressed as the mean ± S.E.M. Statistically significant differences between groups were analyzed by repeated measures using one-way and two-way analysis of variance. The significant level was considered P≤0.05.

Result:: According to our results in the hot plate test , we observed that there was a reduction in the threshold of thermal stimulus in the maternal separated (intervention) group compared to the non-maternal separated (control) group (p 0.01). The results of the mechanical allodynia test show a significant decrease in withdrawal threshold (p 0.05) in the Intervention group compared to the control group. So, these tests show an increased pain sensitivity in the group that experienced stress in early life.

Conclusion:: Current evidence suggests that animals subjected to early-life maternal separation have increased sensitivity to thermal and mechanical stimuli during adult life. Thus, our data are important to understand the impact of environmental influences and epigenetics, such as stressful life events during critical developmental periods, on pain vulnerability.

It is also suggested doing further studies to evaluate the possible effect of neonatal stress on the reticular network of the brain or expression and up-regulation of pain receptors. The results of various studies in this field create a new perspective to prevent the negative effects of separation from the mother in premature babies.

G-2030

Designing A Data Set for An Endometriosis Self-Care System, Based on A Literature Review

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Introduction:: Telemedicine is part of telehealth, an appropriate tool for providing medical care remotely. It is defined as the practice of medicine at a distance and information technology is used to ensure the delivery of medical care services. According to WHO, 190 million reproductive-aged women are affected by endometriosis. According to a recent study, limited access to healthcare services during the COVID-19 pandemic negatively impacted endometriosis patients' lives. Electronic health tools are considered an appropriate alternative for gynecologic care, addressing restrictions in access to health services. Using self-care interventions has a significant impact on managing endometriosis-related pain. Despite the enormous potential of different endometriosis applications, the medical professionals' role has been neglected in the system development process. This study aimed to extract the requirements for developing a system for self-care of endometriosis patients through an overview of the literature and validate them according to the expert gynecologists' point of view.

Method & material:: This cross-sectional descriptive study was conducted in two phases. First, endometriosis-related articles, endometriosis guidelines, and gynecology-related reference textbooks were reviewed to identify required data elements. A researcher-made questionnaire (Cronbach's alpha = 0.98) was designed to validate the identified information elements. Using the random-access sampling method, the questionnaires were distributed between 25 gynecologists. Elements that obtained at least an average score of 3.2 (60%) out of a 5-point Likert scale, were considered as required data elements for designing an endometriosis self-care system.

Result:: According to the literature review, 293 studies were retrieved and after the screening, 36 related studies were included in the research. Through scanning the related articles, and references 126 data elements were extracted. These items were classified into six subgroups including electronic health record (57 items: 15 demographic and 43 clinical data elements), pain management (19 items), lifestyle (19 items), educational materials (12 items), nutritional diet (10 items), and follow-up (9 items). According to the respondents, all data elements except "using traditional opioids/drugs" in the lifestyle subgroup were verified.

Conclusion:: This study provides a data set for designing an endometriosis self-care system. Due to the lack of international standards for designing health apps, the results of this research can be beneficial for the design and development of any endometriosis-related systems. In the current research, an effort has been made to study all related references carefully in order to provide a comprehensive data set for designing and developing an endometriosis self-care system. This data set could be useful for designing any other systems related to endometriosis self-care as well.

خلاصه مقالات

پوسترها

G-1002

Effects of Probiotics on Depressive or Anxiety: A systematic review

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Introduction: Depression and anxiety disorders are the most common mental disorders in human health, and the World Health Organization (WHO) has estimated the prevalence of depression in the global population to be 3.8% in 2023. Due to its high prevalence and debilitating characteristics, anxiety disorders rank sixth among all diseases in the worldwide population. Probiotics are live bacteria that, when eaten in sufficient quantities, have many benefits for the body. It has been observed that there is a two-way communication path between the gut and the brain, called the gut microbiota–brain axis, and probiotics can affect the host's mood and health by regulating the microbial-gut-brain axis. Therefore, the purpose of this systematic review is to investigate the effect of Probiotics on reducing the symptoms of anxiety and depression.

Method & material: This study is written based on PRISMA guidelines. First, the keywords Probiotics , Depression , Anxiety , and Nervousness were searched based on the MESH database in the information databases and the scientific search engine PubMed, Google Scholar, and Scopus to discover studies related to the effect of probiotics on depression and anxiety. It was searched without time and language restrictions. This study included only randomized controlled trials (RCT), and review studies, systematic reviews, and meta-analyses were excluded. A total of 70 articles met the criteria for entering this study.

Result: Among 70 articles, 9 randomized clinical trials (RCTs) met the criteria and were analyzed in terms of the effects of probiotics on depression, anxiety, and psychological stress. One study was conducted on mice and the remaining on humans. Most of these studies used probiotics containing Lactobacillus helveticus and Bifidobacterium longum strains for 4 to 24 weeks. Of these 9 studies, 2 did not observe any beneficial effect and rejected the impact of probiotic compounds on depression and anxiety and 7 studies showed significant improvement in reducing symptoms of depression and anxiety without side effects.

Conclusion: Studies have shown that the use of probiotics to reduce symptoms of depression and anxiety is promising, mainly due to its potential anti-inflammatory effect, but conducting double-blind randomized clinical trials with a larger and more accurate sample to confirm the results and the duration of the intervention and the dosage of these probiotics is essential.

G-1003

The Effect of Regulatory T cell in the treatment of Graft–Versus–Host Disease: A systematic review

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Introduction: Graft-versus-host disease (GVHD) is a major cause of nonrelapse mortality after allogeneic hematopoietic cell transplantation (HSCT) when the donor's immune cells attack the recipient's tissues. The occurrence is typically higher in unmatched donors and the incidence of chronic GVHD ranges from 6% to 80. Regulatory T cells (Tregs) are a subpopulation of T cells that produce Frontal Box P3 (FOXP3) inhibit the immune response and promote immune tolerance. Accordingly, these cells have been proposed as a therapeutic target for GVHD. This systematic review aims to evaluate the effect of Treg in the treatment of GVHD.

Method & material: This study is based on PRISMA guidelines. To conduct this review, we performed a comprehensive search of pertinent databases including PubMed, Google Scholar, and Web of Science. Search terms utilized included Treg , Treg Cell , Regulatory T-Lymphocytes , Regulatory T cells , GVHD and Graft-Versus-Host Disease from August 2002 to November 2022.No language restrictions were considered. A total of 105 results were found, review articles were discarded and 8 articles that were most related to our title were selected. These selected articles contained 5 clinical trials and 3 animal studies.

Result: The studies differed significantly in terms of study design, timing, sources, injection dose, and method of Treg isolation. In animal experiments, Regulatory T cells were obtained from the thymus, spleen, and bone marrow, and in clinical trials, these cells were obtained from cord blood and stem cells. Clinical trials have shown that Tregs prevent and treat GVHD by producing inhibitory cytokines such as IL-10, TGF-B, and IL-35, inducing the death of executive cells by consuming and finishing cytokines such as IL-2 or lysing cells, causing interference in the local metabolism of the target cells and finally inhibiting the function of dendritic cells. Animal studies also confirmed these findings.

Conclusion: The discovery of this study indicates that the use of Treg is a beneficial and sufficient process for the Prevention and treatment of GVHD. Nevertheless, additional large-scale studies are needed to determine the optimal dose and timing of Treg therapy for various patient populations who suffer from GVHD.

G-1004

laboratory findings of deceased patients with confirmed cases of COVID-19

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Introductio: COVID-19 has created a critical situation all over the world with its widespread and high mortality rate. This study was conducted with the aim of determining the laboratory characteristics of patients who died of COVID-19 in Imam Khomeini Hospital (RA) in Jiroft.

Method & material: The current The current research is a cross-sectional (descriptive-analytical) study that was conducted on 267 people who died in Imam Khomeini (RA) Jiroft Hospital in 2021 due to the coronavirus. Data were collected from the medical records of these patients by using a researcher-made checklist. Data were analyzed using SPSS-20 statistical software and descriptive and inferential tests at a significance level of p0.05

Result: The average age of the studied patients was 64.1 ± 19.3 years and most of them were in the age group of 50-80 years, 109 (40.8%) were Male and 158 (59.2%) were Female. An increase in the level of K factors, AST, ALT, Cr, BUN, WBC, and BS and a decrease in the level of lymphocytes were observed.

Conclusion: Examining the laboratory results affecting mortality can help to process treatment patients, with control of increase and decrease indicator laboratory we can help to decrease the death of patients.

G-1005

Study the obstacles and challenges of telemedicine

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Introduction: Telemedicine or remote healthcare is a new topic of discussion within medical communities that can offer a solution to improving access to healthcare services. Following the COVID-19 pandemic, telemedicine gained more prominence in medical communities because it allows for the connection of the three elements of patient, healthcare provider, and healthcare facilities without physical proximity. Like any new concept, telemedicine also comes with its own set of obstacles and challenges. This study aims to examine the obstacles and challenges of telemedicine.

Method & material: The present study is a review article that has been prepared and organized by searching for keywords such as telemedicine , remote healthcare , electronic health , and information technology on online databases including Google Scholar, SID, PubMed, and Scopus, covering the time period from 2018 to 2023.

Result: The implementation of telemedicine systems is faced with numerous challenges, including resistance to change, lack of trust in the service provider organization, insurance and reimbursement issues, initial infrastructure costs, a shortage of technical staff, the absence of secure protocols for data transmission and storage, and the lack of legal frameworks to address these issues. Additionally, there are obstacles along the path of implementing telemedicine systems, such as the lack of awareness among healthcare professionals, the absence of necessary infrastructure, including high-speed internet, and the required systems for data processing, in hospitals, and more.

Conclusion: Telemedicine can indeed be a key solution to address issues such as a shortage of healthcare professionals, limited access to healthcare services in remote areas, and the cost and duration of treatment. However, the implementation of telemedicine comes with its own set of obstacles and challenges. By learning from the experiences of other countries, investing in infrastructure, enacting new regulations, raising awareness, and training specialists in this field, we can work to overcome these challenges.

G-1006

Investigate the potential of telenursing on improving the quality of life of diabetic patients

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Introduction: Diabetes is a chronic disease that requires patients' self-monitoring and self-management to achieve glucose targets and prevent complications. Patients get educations in Hospital but after that Because diabete is a chronic and perennial disease so Patients may forget some care. to remind some care such as activity, diet and periodical tests, telenursing can be useful Telenursing is one of the potential approach to promoted self-management of people with diabetes and support them.

This review aims to investigate the potential of telenursing as a nursing care delivery model and improving the quality of life patients with diabetes

Method & material: A systematic review was on several databases, including PubMed, Medline, Science Direct, with the keywords :Diabetes, telenursing. Inclusion criteria were articles with diabetic respondents, published between 2015 and 2022 and open-access .after reviewing 50 articles were obtained. And qualitative, protocol, or review articles, commentaries, letters to editors, and case study/reports were excluded. After reviewing the relevant articles 10 articles with full text and related to the title were evaluated

Result: The results of 10 studies show that telenursing improves the metabolic indicators of patients and Patients were satisfied with following the educations. the telenursing also indicated improvements in positive behaviors, attitudes, and the intention of self-management

Conclusion: Telenursing as a useful tool for patients education and their family and monitoring on diet and life style can improve their glycemic control and quality of life of diabetic patients

G-1007

Medical Ethics in a Globalized World: Bridging Cultural and Ethical Perspectives

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Introduction: In a globalized world, medical ethics encounters complex challenges as diverse cultural and ethical perspectives intersect within healthcare systems. This article aims to explore the implications of this intersection on medical ethics, highlighting the importance of bridging cultural gaps and fostering mutual understanding.

Method & material: Through a literature review and analysis of case studies, this study examines the ethical dilemmas that arise when different cultural norms, beliefs, and values intersect with medical decision-making. It also explores the existing ethical frameworks and strategies for navigating these challenges.

Result: The analysis reveals that cultural relativism and universal ethical principles often coexist, creating a need for balance and sensitivity in healthcare ethics. The ethical dilemmas encountered at the intersection of cultures include informed consent, end-of-life decision-making, allocation of scarce resources, and conflicts between cultural practices and medical interventions.

Conclusion: To bridge cultural and ethical perspectives in medical ethics, healthcare professionals must adopt culturally competent approaches, develop cross-cultural communication skills, and promote education on cultural diversity. Establishing multicultural ethics committees, practicing cultural humility, and engaging in community dialogue are key strategies for developing inclusive and culturally sensitive medical ethics guidelines. By embracing diversity and fostering collaboration, we can build a more inclusive and ethically sound healthcare system in a globalized world

G-1008

Investigating the effect of artificial intelligence in diagnosing and performing orthopedic procedures:a review article

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Introduction: Today, most of the data is in electronic form, so the healthcare community has also become more updated along with the advancement of technology. Artificial intelligence is one of the popular technologies today, which with the algorithms it provides for a machine, leads to the solution of problems that could only be solved with the human mind in the past. Artificial intelligence will do things according to human performance and even more complex. Today, artificial intelligence plays a role in human life, and with its computing, storage and processing capabilities, it has caused penetration in the diagnosis and treatment of departments, including the orthopedic department. Today, artificial intelligence-based robots that are based on machine learning (ML), which is a sub-branch of artificial intelligence and uses computer algorithms, analyze information such as the patient's medical record, laboratory results, and patient imaging, and help surgeons in better diagnosis and providing treatment solutions.

Method & material: In this review study, using appropriate keywords, 18 articles from the English PubMed, WOS, Scholar databases from 2019 to 2022 were examined, and 12 articles related to the topic were selected from among them.

Result: Artificial intelligence has the ability to solve diagnostic problems and especially complex diagnoses in a short amount of time and saves time. On the other hand, there are limitations such as; There is financial capital and uncertainty about artificial intelligence variables and the lack of long-term studies in following up the efficiency of this method and there is a need for more research. Ethical considerations of using machine learning are also another limitation, because the existence of a lot of data may violate the principle of patient confidentiality and consent. Although artificial intelligence is most widely used in medical imaging today, and with the changes it makes in MRI imaging sequences, it leads to more accurate visualization of lesions, but it can also be used to perform simple surgeries, on the other hand, despite the availability of surgical systems. Based on artificial intelligence, human supervision is still necessary.

Conclusion: Technology is progressing at a very high speed and one day it is possible that an artificial intelligence equipped with full intelligence will perform some surgeries and facilitate surgeries with minimal damage and complications.

G-1009

Investigating the effects of using telemedicine on the services provided during the corona virus epidemic: a review study

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Introduction: The coronavirus disease (COVID-19) first affected the world population in Wuhan, China in December 2019 and was declared a major public health concern worldwide. Investigations showed the spread of this disease due to the consumption of seafood, poultry and live animals. Covid-19 leads to physical symptoms such as fever, muscle aches, fatigue, and shortness of breath, and can potentially cause serious conditions such as cytokine storms that cause death. However, the negative psychological effects of the disease are far more extensive. Despite the many problems during the Covid-19 era, the World Health Organization introduced telemedicine to provide healthcare. This technology uses electronic tools for diagnosis, treatment and prevention of diseases and injuries as well as research and evaluation, training of health care providers in order to improve the quality of conditions. This system was first used by telephone and video technology in the 1960s in the military and space sectors.

Method & material: In this review study, 18 articles from Persian and English SID, PubMed, Web of Science, Scholar databases were examined from 2020 to 2023 and 11 articles were selected from among them.

Result: Studies have shown that telemedicine can effectively treat the employees of health care centers who had high levels of anxiety and fatigue during the covid epidemic and a strong need for mental health support. Telemedicine is useful for improving professional education, quality control of screening programs, reducing health care costs, and improving access to information. This technology is useful for reducing health care disparities during disasters and epidemics and enables remote consultation, monitoring and management of chronic patients. Therefore, this technology can be used for continuous management and a safe and effective alternative to the physical care of the doctor and the patient. Based on the studies conducted in telemedicine, there are problems such as the breakdown in the relationship between health professionals and patients, ethnic and racial barriers to communication, poverty and lack of communication systems, difficulty in communicating with the elderly, and lack of access to the Internet.

Conclusion: It can be concluded that telemedicine can increase the services provided to people during epidemics and make it easier for these people to access the necessary information and create a safe environment for both health care workers and patients, but it can be useful and effective on a large scale if the infrastructure is provided. And all aspects should be considered.

G-1010

Examining the satisfaction of undergraduate students in the operating room with two traditional training methods (clinical trainer) and the method of using field students in training the clinical team (mentor plan)

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Introduction: The clinical education environment is a place to develop the clinical skills of students to enter the working society, i.e. the hospital. Various researches have pointed out several factors related to the ineffectiveness of the internship, which includes the lack of experienced trainers. The teaching method is also one of the effective factors in creating motivation in student learning. There are different teaching methods, among them, the method of using one person as a clinical lecturer and the other is the mentorship method. Therefore, considering the importance of instructors in the success of clinical training of students and the importance of the issue of satisfaction in order to achieve superior quality in clinical training, this study aims to compare the performance and satisfaction of instructors and undergraduate students in the operating room of Alborz University of Medical Sciences in 2016 using The mentioned two methods were performed.

Method & material: The current study was a descriptive-analytical study that was conducted cross-sectionally in 2016 on undergraduate students of Alborz Medical Sciences Operating Room. Sampling is done in a stepwise manner. The data was collected through a separate questionnaire created by the researcher, which includes the demographic information section, the performance evaluation section of the relevant professor in the internship in four areas (discipline and regulations, communication, motivation, training and evaluation) with a Likert scale. 4 phrases from very good to poor and the level of satisfaction section (satisfaction with the relevant teacher and educational facilities) with 4 phrases from very high to unsatisfied information was obtained. The data was analyzed using spss software and statistical methods.

Result: The results obtained from this study showed that the students' satisfaction with the relevant internship department was more when a coach was used for training than a mentor. Students were significantly more satisfied with their mentor professors than their mentor professors in the four areas of regulation, communication, motivation, education, and evaluation.

Conclusion: Considering the lack of satisfaction of operating room students with the capabilities of mentor professors in the four areas of communication, motivation, training and evaluation, it can be concluded that the mentoring plan can be more useful as a training facilitator if implemented correctly.

G-1015

Examining the physical activity level of patients with type 2 diabetes referring to selected centers of Qazvin city according to the stage of change model in 1401

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Introduction: Diabetes is the most common glandular disease in the world, and the World Health Organization has declared it as a latent epidemic due to the statistics and the increasing trend of diabetes. One of the ways to manage diabetes and control its complications is regular physical activity with moderate intensity. The meta-theoretical model is one of the most comprehensive models in changing physical activity behavior. For this purpose, the present study was conducted with the aim of investigating the level of physical activity of patients with type 2 diabetes according to the stages of change model.

Method & material: This cross-sectional descriptive study was conducted in 1400 on 360 patients with type 2 diabetes in teaching hospitals of Qazvin city. The samples were included in the study using available sampling method. Demographic information questionnaire, stages of change models (SECQS) and physical activity questionnaire (GPAQ) were used to collect data. After data collection, statistical analysis of data was done using SPSS version 22 software. Also, descriptive statistics including mean and standard deviation and inferential and analytical tests including chi-square, independent t, one-way analysis of variance and non-parametric tests were used.

Result: In this study, the average age of the participants was 62.43 ± 13.89 years and 53.3% of the patients were female and 46.7% were male. The largest number of patients (53.26%) were in the pre-contemplation stage and the least number of patients (4.25%) were in the maintenance stage. In terms of the amount of physical activity, the highest frequency (56.66%) was assigned to people who walk for at least 10 minutes continuously or commute using a bicycle, and the lowest frequency (9.63%) of the amount of physical activity belonged to people They had intense physical activities. Also, there was a significant relationship between the variables of age, level of education, and the duration of the disease with the amount of regular exercise (P0.001).

Conclusion: The results of this study showed that about 70% of people were in the pre-contemplation and contemplation stage and the amount of physical activity in diabetic patients was at an unfavorable level; Therefore, considering the growing number of people with diabetes and the importance of physical activity in diabetic people in preventing cardiovascular diseases and complications of diabetes, based on the results of this study, it is possible to design and implement educational programs to promote physical activity in patients with diabetes. Treat diabetes.

G-1016

Probiotic soy beverages: a functional beverage on lipid profile, oxidative stress and kidney function, a systematic review of randomized controlled trials

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Introduction: Soy beverages and their derivatives provide a wide range of nutritional and physiological advantages. Recently, great attention has been focused on the effects of soy products, particularly fermented soy beverages in case of chronic diseases prevention. Lifestyle and dietary modification and enhancing physical activity are potential strategies for chronic disease prevention. Probiotic co-administration with other therapies, such as soy beverages, has been shown to have favorable results in both human and animal studies. High concentrations of bioactive substances, such as antioxidants, have made fermented foods a promising approach for chronic disease control. To the best of our knowledge, there isn't a thorough literature review that assesses how fermented soy beverages might affect metabolic status. Therefore, the purpose of the current study was to conduct a systematic review of randomized clinical trials (RCTs) that examined the effects of probiotic soy beverages (PSB) on lipid profile, oxidative stress, inflammation and kidney function.

Method & material: The study was conducted based on PRISMA guideline. Relevant articles were extracted from PubMed, SCOPUS, Web of Science, and Google scholar up to September 2022. We searched all databases using the following keywords: ('Soy milk' OR 'Soy beverage' OR 'Fermented soy milk' OR 'Soy Fermented Beverages (AND ('Probiotic' OR 'Probiotics (. No language, age, and publication date restrictions were considered in the literature search.

Result: A total of 2183 records were extracted through the primary systematic search. After removing duplicates and irrelevant studies, a total of 9 studies were included in this systematic review . Of the 9 studies, 4 RCTs have assessed the lipid profile of participants. PSB beneficially decreased LDL-C, HDL-C and T-chol levels. 2 studies evaluated the oxidative status of participants . PSB beneficially affected oxidative stress markers such as; SOD, Glutathione peroxidase, Glutathione reductase, and Glutathione. 3 studies assessed kidney function markers , serum creatinine, Cystatin-C, Progranulin and eGFR were decreased significantly in the PSB groups . Of the 9 studies, 3 studies have reported WHR and BMI as anthropometric indices , all three studies revealed no significant changes.

Conclusion: Combiniation of soy beverages with probiotic would enhance its benefitial effect on health outcomes. This study revealed that PSB would enhance lipid profile, oxidative stress and kidney function but no relation was found between PSB and WHR and BMI. Further clinical trials are required to confirm these findings.

G-1018

Effects of melatonin and N–acetylcysteine (NAC) on NLRP1 levels in the pnumbera area of rat cerebral ischemia model

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Introduction: Ischemia is the most common type of stroke occurring usually due to the middle cerebral artery occlusion (MCAO) and leads finally to the devastating brain damage. Inflammation and immune responses play an important role in the pathogenesis of ischemic stroke by activating various types of traumatic cascades.

Method & material: Wistar rats underwent left side MCAO, and intraperitoneal injection of 50 mg/kg NAC and 5 mg/kg melatonin was performed at 24, and 48 hours after ischemia. Animals were then killed on the fourth day after surgery. The groups were Sham, Ischemic, NAC, Melatonin, and NAC + Melatonin. Neurobehavioraltests,

triphenyltetrazolium chloride (TTC), and ELISA was then used.

Result: As compared to the ischemic group, NAC + Melatonin group showed a higher rate in the mean score of the sensory-motor activity ($p \leq 0.05$). QReal time PCR represented a significant reduction in the expression of NLRP1 in the NAC + melatonin group compared to ischemic group ($p \leq 0.05$).

Conclusion: Based on the data from the present study, it can be concluded that the simultaneous use of NAC and melatonin can improve neurobehavioral function by modulating NLRP1 expression in the ischemic brain cortex.

G-1019

Iranian nurses views on family presence during cardiopulmonary resuscitation: a systematic review

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Introduction: Cardiac arrest is the most common cause of death worldwide after heart disease. Nurses' opinion about the presence of family members during cardiopulmonary resuscitation can affect their performance in the implementation of this method. For this purpose, the present research was conducted with the aim of reviewing the studies conducted on the opinion of Iranian nurses regarding family presence during cardiopulmonary resuscitation.

Method & material: In this review, all articles related to the purpose of the study published until July 2020 were examined. The search was conducted in the international databases of Pubmed, Scopus, Web of Science, Google Scholar and CINAHL and the domestic databases of SID and Magiran for articles published from 1990 to 2020. The keywords of cardiopulmonary resuscitation, family presence, attitude of nurses and medical staff were used for searching. The criteria for inclusion of articles in the current study included being published in Iranian or foreign journals, English or Persian, and articles with a sample population of nurses. Finally, based on the relevance of the articles to the research topic and the inclusion criteria, 6 related articles were selected and reviewed. After searching, 140 articles related to the purpose of the research were found. The evaluation of the quality of the articles was based on the PRISMA 2009 checklist.

Result: According to the criteria for entering the articles into the study, a total of 6 articles were identified with the purpose of the present study, and all 6 articles were descriptive. The highest number of participants in the study was related to a study in Kerman with 303 nurses and the lowest number was related to a study in Tehran with 120 samples. The results of the survey showed that Iranian nurses do not have a positive opinion about the presence of family members during cardiopulmonary resuscitation. The most common cases mentioned by Iranian nurses included increased stress among resuscitation team members, difficulty in stopping resuscitation in the presence of the family in the event of unsuccessful resuscitation, and the possibility of legal problems.

Conclusion: The results of the studies showed that in half of the studies, Iranian nurses have a neutral view and in the other half, they do not have a positive view of the presence of family members during cardiopulmonary resuscitation. Considering the many challenges this issue has created for nurses during resuscitation, it is recommended to conduct more studies in this field among Iranian nurses.

G-1020

The effect of acupuncture combined with physical activity on rectus abdominis in the postpartum period

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Introduction: Diastasis rectus abdominis (DRA) is one of the common complications during pregnancy and after childbirth, which has psychological and physical effects on women after childbirth. Acupuncture, an alternative therapy worldwide, has attracted widespread attention in the prevention and treatment of diseases related to pregnancy and childbirth. This study was conducted with the aim of investigating the effectiveness of acupuncture combined with physical exercise in the treatment of right muscle detachment after childbirth

Method & material: In this systematic review, a search was conducted in Scopus, PubMed, Cochrane Library, Embase, Magiran, SID, Web of Science and Google Scholar search engine until April 2023. The inclusion criteria included clinical trial and semi-experimental studies in articles published in Persian and English. Persian and English keywords including acupuncture, diastasis recti, postpartum, intra-abdominal stimulation and their combinations were used to search the mentioned databases. Jadad scale was used to evaluate the quality of the articles included in the study.

Result: From the total of 300 articles received, finally 10 interventional studies including clinical and semi-experimental trials that met the inclusion criteria were reviewed. Out of these 10 studies, 3 studies were conducted on women candidates for interventions and all 3 studies were associated with the positive effects of acupuncture. They pointed out the rectus abdominis diastasis in the postpartum period with physical activity. The rest of the studies were conducted on postpartum women, the effect of acupuncture along with physical activity on rectus abdominis in the postpartum period was not found enough evidence.

Conclusion: Acupuncture combined with physical exercise can significantly improve tissue excitability, which improves blood circulation and systolic muscle function, and regulates the mechanical balance of postpartum abdominal muscles

G-1021

The effect of vaginal evening primrose capsule on cervical ripening in multiparous women with prolonged pregnancy

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Introduction: Cervical preparation is important and discussed due to medical problems in obstetrics and gynecology. Evening primrose is one of the medicinal plants used to prepare and soften the cervix before obstetric interventions. Therefore, the present study was conducted with the aim of determining the effect of vaginal evening primrose capsule on cervical ripening in multiparous women with prolonged pregnancy.

Method & material: In this systematic review, a search was conducted in Scopus, PubMed, Cochrane Library, Embase, Magiran, SID, Web of Science and Google Scholar search engine until April 2023. The inclusion criteria included clinical trial and semi-experimental studies in articles published in Persian and English. Persian and English keywords were used to search the mentioned databases, including evening primrose, cervical preparation, multiple pregnancies, prolonged pregnancy and their combinations. Jadad scale was used to evaluate the quality of the articles included in the study.

Result: From the total of 500 articles received, finally 15 interventional studies including clinical and semi-experimental trials that met the inclusion criteria were reviewed. Out of these 15 studies, 5 studies were conducted on women candidates for gynecological interventions and all 5 studies showed the positive effects of Gol Maghrabi on Preparation of the cervix in multiparous women with prolonged pregnancy was mentioned. The rest of the studies were conducted on pregnant women, and insufficient evidence was found regarding the effect of evening primrose and its side effects in pregnancy

Conclusion: According to the obtained results, there is no reliable evidence that evening primrose has a positive effect on cervical preparation, so it is suggested that more studies be done in this field before using evening primrose in the hospital

G-1022

link between risk for Alzheimer's disease and COVID-19 outcomes

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Introduction: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was noticed as a contagious coronavirus disease 2019 (COVID-19), leading to a Wide range of symptoms differing from fever and chills to various organ failures, the CNS ,for example in which one of the drastic challenges in neuroscience's world emerges. Alzheimer's disease (AD) is a Subversive condition whose etiology is defined by several suppositions. Recently, viral involvement in AD is approved in which the SARS-CoV-2 can be considered.

Method & material: Three databases including PubMed, Scopus and WOS were searched according to the related terms. 291 results for PubMed, 692 for WOS, 429 for Scopus and then 1412 from all databases were found. After duplication, 788 articles left for screening. Two independent reviewers screened based on title and abstract to elucidate if the full text is related or not. Studies, in which the interaction of three features above completely were presented, included and then review, animal and nonoriginal studies were excluded. Finally, we did hand-searching to recognize missing studies in database searches.

Result: The total search obtained 1412 studies. After screening titles and abstracts, full-text screening where done for 58 studies, then 15 studies yielded based on the eligibility criteria. Based on recent papers , It was appeared that patients with AD present with diversity of clinical features of COVID-19 and delirium is common in this group. Overexpression of angiotensin-converting enzyme 2 (ACE2) is observed in brains with AD, which thus increases the viral invasion, because The SARS-CoV-2 virus enters host cells through the ACE2 receptor. Besides, the virus inhibits the ACE2 receptor which the brain-derived neurotrophic factor (BDNF) may also decrease, contributing to neurodegeneration. The ApoE ε4 allele, which increases the risk of AD, was found to facilitate the SARS-CoV-2 entry into cells. Furthermore, the neuroinflammation existing in AD patients increases the inflammatory response associated with COVID-19. Pandemic and associated social distancing measures negatively affected the mental health and neuro-psychiatric symptoms.

Conclusion: The SARS-CoV-2 virus that caused the COVID-19 pandemic affected people with Alzheimer's disease in many ways. AD is one of The most common diseases associated with COVID-19. There was also co-occurrence of AD with COVID-19 .It was observed that it significantly increases the mortality of patients.

G-1023

Death anxiety in prehospital emergency personnel of Qazvin province during the covid-19 pandemic.

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Introduction: Pre-hospital emergency workers, as the frontline forces in the fight against Covid-19, have been affected by this epidemic. Nowadays, the occupational and mental health of these people is of special importance for the health system. Death anxiety is one of the inevitable aspects of this job, and not paying attention to it can lead to unwanted side effects. Therefore, this study was conducted with the aim of investigating death anxiety in pre-hospital emergency personnel of Qazvin province during the covid-19 pandemic.

Method & material: This cross-sectional descriptive study was conducted among pre-hospital emergency workers in Qazvin province in 2021-22. 198 samples were included in the study using available sampling method. The inclusion criterion was not having a confirmed psychological illness and the exclusion criterion was unwillingness to participate in the study. The data collection tool included demographic information checklist, Templer's death anxiety scale. The data were analyzed using SPSS version 22 software and using descriptive analysis methods and independent and two-sided t-test.

Result: The average age of the participants in this study was 33.14 ± 6.77. 167 samples were male (84.3%) and 31 samples were female (15.7%). Among these, 130 samples (65.7%) mentioned a history of being infected with Covid-19. The average score of death anxiety in the personnel was 1.96 ± 8.18. The results of this study showed that the average score of death anxiety in the female group (8.61 ± 1.86) is higher than the male group (8.10 ± 1.98). Single people have the highest average anxiety score of death (8.45 ± 1.99) and divorced people have the lowest average anxiety score (5.50 ± 0.71). People with a diploma degree also have the lowest average score (7.67 ± 2.06) and people with a master's degree have the highest average score of death anxiety (9.30 ± 1.83).

Conclusion: The results of this study showed a high level of death anxiety in prehospital emergency personnel. Although there was no relationship between predictive factors at a significant level, but due to the fact that they are not at an acceptable level, it requires further investigation in this field.

G-1024

Investigating The Effect of Mindfulness–Based Art Therapy on Stress and Anxiety of Breast Cancer Patients: A Systematic Review Study

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Introduction: One of the leading causes of morbidity and mortality worldwide is cancer which causes about 1 in 6 deaths. One of the most prevalent cancers in women is breast cancer (BC) which affects more than 1.5 million people annually. Mindfulness-based art therapy (MBAT) is a method that incorporates mindfulness practices like yoga and meditation into art therapy practices like painting and drawing. MBAT causes the expression of thoughts and feelings and can boost adaptive stress responses, wellness, and health. Evidence of research proposes MBAT as an effective method of reducing irregularities and disorders and improving women's lifestyles with different cancer types. So, this study aims to investigate and analyze the effect of mindfulness-based art therapy on the stress and anxiety of breast cancer patients.

Method & material: PubMed, Scopus, Web of Science, Google Scholar, SID, Magiran, and Iran doc databases were used to search for articles. For searching articles in databases, Mindfulness-Based Art Therapy, Stress, Anxiety, and Breast Cancer were used as keywords. All interventional studies related to the topic in English and Persian languages and in the time range of 2010 to 2023 with emphasis on the last 5 years were retrieved, in total 636 articles were potentially obtained by title/abstract screening firstly and then by full-text screening 6 articles remained finally.

Result: The included articles were published between 2012 and 2021 in various countries. Sample sizes ranged from 18 to 235 participants, ranging from 25 to over 50. In every 6 articles, MBAT was done for intervention groups, and the types of control groups included treatment as usual, waitlist, and breast cancer support group. The outcome variables included in most studies were psychological distress and quality of life (QOL). The WHO Quality of Life questionnaire, psycho-oncology assessment questionnaire, Distress Thermometer, Functional Assessment of Chronic Illness Therapy-SWB Scale 12, Symptom Checklist-90-Revised, and Medical Outcomes Study Short-Form Health Survey were used in the studies as instruments. Overall, in all included studies, it has been shown that after using MBAT for intervention groups, the mean scores of outcome variables measured by instruments showed a statistically significant difference compared to the control groups.

Conclusion: MBAT intervention significantly decreases breast cancer patients' stress and anxiety and improves their quality of life. In the future, it can be used widely in clinical environments.

G-1025

AI in nursing education: predicted impacts

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Introduction: The use of artificial intelligence (AI) is expected to revolutionize nursing practice in areas such as administration, clinical care, education, policy, and research. As a result, there is growing interest in studying the impact of AI health technologies (AIHTs) on nursing, including nursing education. However, there has been limited effort to gather and consolidate existing research on this topic. A systematic review was carried out with the aim of providing a comprehensive summary of the present and future effects of AI health technologies (AIHTs) on nursing education.

Method & material: To conduct this systematic review, search was done in international [PubMed, Scopus and web of science] and Iranian scientific data bases [Scientific Information Database (SID), IranMedex and Magiran] from 2013 to2023. Predefined inclusion criteria and a PRISMA flowchart were used to evaluate the studies. After reviewing the titles, abstracts and results of articles, 8 studies were finalized.

Result: The participants in this study were comprised of nurses, nurse educators, and nursing students at different levels of education. several types of AIHT such as virtual avatar apps, smart homes, predictive analytics and gaming apps were discussed. we identified two primary areas of focus, which were the impact of AI on nursing education within academic institutions and its impact on nursing education in clinical practice.

Conclusion: There is an urgent need to update the nursing education curriculum in both academic institutions and clinical settings to ensure that nurses and nursing students are adequately prepared to practice in the era of AI in a safe and efficient manner. In addition, nurse educators must adopt new and evolving teaching methods that incorporate AI to better support students at all education levels.

G-1026

In healthcare, artificial intelligence raises ethical concerns

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Introduction: Healthcare is increasingly incorporating artificial intelligence (AI). With AI becoming more prevalent in healthcare, ethical concerns surrounding AI must be addressed. Such ethical issues include privacy, data accuracy, fairness, and accountability. During this systematic review, ethical issues of AI use in healthcare were identified, gaps were highlighted, and steps were proposed to move toward an evidence-informed approach to solving them.

Method & material: To conduct this systematic review, search was done in international [PubMed, Scopus and web of science] and Iranian scientific data bases [Scientific Information Database (SID), IranMedex and Magiran] from 2013 to2023. Predefined inclusion criteria and a PRISMA flowchart were used to evaluate the studies. After reviewing the titles, abstracts and results of articles, 9 studies were finalized.

Result: As shown in the study, the principles of fairness, preservation of human autonomy, explainability, and patient privacy were equally the most frequently discussed ethical principles. Prevention of harm was the least researched ethical principle. Among the retrieved studies, few have examined ethical principles in relation to the design or deployment of AI.

Conclusion: Most reports on AI-based technologies don't report any tools for testing and upholding moral requirements throughout the technology's lifecycle. As well as this, it is important to make sure that the viewpoints of different stakeholders are taken into account.

G-1027

Investigating The Effect of The Self-Management Program Based on the 5A Model on Quality of Life and Coping Strategies of Patients with Hypertension: A Systematic Review Study

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Introduction: Hypertension has become a major public health challenge and is one of the leading causes of cardiovascular disease and mortality worldwide. The quality of life of patients with high blood pressure is affected due to the high risk of mortality and re-hospitalization. One of the influencing factors on the quality of life is self-management. The 5A self-management Model is an effective tool for modifying behavior and improving patient care. Thus, a systematic review is conducted to evaluate studies investigating the effect of the self-management program based on the 5A Model on the quality of life and coping strategies of patients with hypertension. The aim of this study is to investigate the effect of the self-management program based on the 5A Model on the quality of life and coping strategies of patients with hypertension.

Method & material: The protocol of the systematic review followed the PRISMA guideline. An extensive search from the beginning to May 12, 2023, using current articles in databases such as PubMed, CINAHL, Scopus, and Web of Science with keywords 5A model," Hypertension," Quality of Life," Coping Strategies," Self-Management Program is conducted. All Persian and English-published clinical trials that met the inclusion criteria were included in this review. Review articles, descriptive studies, letters to the editor, and reports were excluded from this review.

Result: After searching the databases, 540 articles were found; however, after screening the titles and abstracts, only 8 articles remained. Finally, 5 studies met our inclusion criteria. The studies' findings demonstrated that applying the 5A self-management Model to patients with hypertension can enhance their quality of life (4 studies), self-care (2 studies), and coping strategies (1 study).

Conclusion: The self-management program based on the 5A Model can be implemented in the healthcare system as an efficient and promising option to enhance the quality of life, coping mechanisms, and overall health of patients with high blood pressure.

G-1028

Investigating The Effect of Reflexology on Chemotherapy–Induced Nausea and Vomiting in Cancer Patients: A Systematic Review Study

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Introduction: Nausea and vomiting are common, severe, and frightening side effects in individuals undergoing chemotherapy for cancer treatment, affecting up to 40% of these people. Despite recent improvements in management and control, as well as the discovery of novel anti-nausea and vomiting medicines, nausea and vomiting continue to be irritating and frightening concerns in this patient. Evidence suggests that reflexology, as a component of complementary medicine, can be used by doctors and nurses to regulate and manage cancer treatment consequences, including chemotherapy. The aim of this study is investigating the effect of reflexology on chemotherapy-induced nausea and vomiting in cancer patients.

Method & material: The protocol of the systematic review followed the PRISMA guideline. An extensive search from the beginning to May 20, 2023 using the latest articles in databases such as PubMed, Scopus, Web of Science, Google Scholar with keywords Reflexology , Chemotherapy , Nausea , Vomiting , and Cancer was done in English. All interventional studies that met the inclusion criteria were included in the study. Descriptive, analytical, review articles, letters to the editor, reports of conferences were among the exclusion criteria.

Result: After searching the databases, 106 articles were obtained, which were reduced to 13 articles by checking the title and abstract. Finally, by reviewing the full texts of 6 articles met the criteria of our study. The results show that foot reflexology is effective on patients with different types of cancer such as women's cancer (1 study), lung cancer (1 study), and breast cancer (1 study). The results also show that the difference between the intervention and control groups in the mean scores of nauseas and vomiting caused by chemotherapy after reflexology in 5 studies is statistically significant.

Conclusion: Reflexology as an effective and cost-effective intervention can be used in clinical settings by health care providers for cancer patients and can be effective in improving complications caused by common cancer treatments, including chemotherapy.

G-1029

The effect of self-care education based on the health literacy index on the quality of life of older adults: a systematic review

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Introduction: Older adults are a group with high needs and attention. Although there have been significant advances in geriatric health policies in recent years, there are still challenges to providing quality care. Older adults must achieve self-sufficiency and self-management by receiving appropriate training in self-care. Evidence shows that health literacy, defined as a person's ability to acquire, understand, and process information to measure conditions and make appropriate decisions in the field of health, is an effective factor in improving the quality of people. This study aims to investigate the role of self-care education based on the health literacy index on the quality of life of older adults with chronic diseases.

Method & material: A systematic search from the beginning to May 21, 2023, in PubMed, Web of Science, Scopus, and Google Scholar databases with keywords Self-Care Education, Health Literacy Index, Quality of Life, Chronic Disease, and Older Adults was done in English. All intervention articles that met the inclusion criteria were included in the study. Review, descriptive, analytical studies, letters to the editor, reports, and conference articles were among the exclusion criteria.

Result: After searching the databases, 283 articles were obtained, which were reduced to 32 articles by checking the title and abstract. Finally, by reviewing the full texts of 7 articles, they met the criteria of our study. The results showed that self-care training based on the health literacy index in older adults with chronic diseases such as blood pressure (3 studies), diabetes (2 studies), and cancer (1 study) is effective in all aspects of their quality of life and can significantly improve it. However, in one study, this method, compared to another educational method, could not create a statistically significant difference in the average self-care scores of interventions and control group patients after implementation.

Conclusion: Medical staff members, especially nurses, can use self-care training based on the health literacy index in clinical settings, and improving the self-care ability of older adults can lead to improvement in patient treatment results, satisfaction with treatment, and quality of life.

G-1030

Investigating predictors of preterm delivery: a systematic review

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Introduction: Premature delivery is one of the most important disorders observed during pregnancy that can cause problems. therefore, knowing the factors related to it can play an important role in improving the conditions of pregnant women.Conducting this study is to investigate the predictors of preterm delivery.

Method & material: The present study is a systematic review that examines 30 valid articles that have criteria were included in the study and were published between 2013 and 2023. Searching for articles in the database Pub med, Magiran, SID and google scholar search engines were done. using keywords Premature birth, predictive factors, high-risk pregnancy and their English equivalents in Persian and English magazines It was done. Two researchers separated the data separately and the third person supervised the process of data extraction had.

Result: About 75% of premature births occur spontaneously.The pathogenesis of this type of birth is well known not known.The probability of premature labor increases in the presence of some maternal factors such as BMI,age (over 35 years),history of thyroid disease, history of intrauterine fetal death(IUFD), premature rupture of membranes (PROM),incidence Preeclampsia and amniotic fluid volume reduction had a significant relationship with the occurrence of preterm labor.In one study The mRNA levels of CRY2 and CLOCK genes were lower in women who had premature delivery.These two genes are responsible for They are the regulation of the circadian rhythm of the cells.High levels of cytokines in amniotic fluid and cervicovaginal secretions Premature rupture of the amniotic sac was associated,plus high interleukin-10 levels were significantly associated with preterm delivery had.According to the studies,the chances of premature delivery in alkaline pH of the vagina compared to acidic pH were more than 3 times,and this difference.

Conclusion: According to the results of the history of premature birth, the low level of mRNA in two CRY2 and clock genes. High levels of cytokines and interleukin 10, low PAPP-A and vaginal alkaline pH are helpful in predicting preterm delivery. Screening and identification of pregnant mothers at risk prevents infant mortality. So It is necessary to teach the effective factors on premature birth to the health care personnel.

G-1031

Dimensions of burnout in Burnout of Health house workers: a cross-sectional study

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Introduction: Job burnout is a syndrome composed of chronic emotional and physical fatigue, which has three dimensions: emotional exhaustion, depersonalization, and individual inefficiency, and it leads to adverse consequences such as increased absenteeism, job abandonment, and reduced responsibility. The present study was conducted with the aim of investigating the dimensions of job burnout in health workers working in health centers in Ahvaz city.

Method & material: This cross-sectional descriptive study was conducted on a number of healthcare workers employed in health centers in Ahvaz (113 individuals) in 2019. The sampling method was census and the data collection tool was the Maslach Burnout Inventory (MBI) questionnaire. The questionnaire was completed by healthcare workers and the data were analyzed using SPSS software version 24 and statistical tests including T-Test, ANOVA, and Pearson Correlation.

Result: The majority of the study's participants were female (52/2%) and single individuals (77/9%), and individuals with a diploma degree (47/8%) had the highest frequency of education. The work experience of most participants was between 11-20 years. The mean (standard deviation) of job burnout intensity among healthcare workers was 82/20±5/7. Additionally, the mean (standard deviation) of the three dimensions of job burnout, including emotional exhaustion of 36/8±15/7, depersonalization of 8/4±7/8, and individual inefficiency. of 37/3±10/5 were observed. A significant relationship was also found between job burnout and years of work experience in this study.

Conclusion: Given the high level of job burnout in health workers in Ahvaz County and the proven impact of job burnout on employee performance, it is necessary for officials to pay more attention to improving and rectifying the current situation. Providing specialized training to reduce job burnout in health workers can increase efficiency, effectiveness, and productivity in providing health services. Therefore, it is recommended to provide such training to improve the conditions for healthcare workers in Ahvaz.

G-1032

Barriers to the development of telemedicine from physicians and clinical staffs perspectives in Iran: a systematic review

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Introduction: Distance is a key consideration in telemedicine, which involves the delivery of healthcare services using information and communication technologies. Despite the rapid growth of telemedicine in the health systems of developed countries, its establishment and development in developing countries, including Iran, face many obstacles. This study was conducted with the aim of identifying the barriers to the establishment and development of telemedicine in Iran.

Method & material: The current systematic review study was conducted in 2023 according to the PRISMA guidelines. All relevant English and Persian studies were searched in databases, including Web of Science, PubMed, Scopus, SID, and Magiran. No year restriction was applied. The quality of the included studies was assessed based on the Joana Briggs Institute's (JBI) critical appraisal tools. The data were analysed using narrative synthesis and deductive-inductive thematic analysis.

Result: Among the 134 papers identified, only nine studies were included. Barriers and challenges were assembled under 5 categories: financial (lack of sufficient investment, the high-cost establishment of this technology, lack of insurance coverage for telemedicine services and reimbursement system), infrastructural (low-speed internet and bandwidths, lack of internet access in different geographical areas, lack of related hardware and software equipment, complications in primary pieces of equipment), technical (lack of telemedicine standards, lack of supportive services to promote telemedicine, lack of comprehensive rules, guidelines, and clinical frameworks for using technology), cultural (medical staff resistance to use this system, lack of awareness of the technology and its benefits, society's resistance to adoption and lack of support for this technology), legal (privacy and confidentiality issues, lack of coordination between different health sectors).

Conclusion: The widespread use of telemedicine is still hampered by various barriers and challenges. Healthcare providers should work with various stakeholders to implement the proposed solutions. More research and policy changes are essential to optimizing telemedicine utilization.

G-1033

Investigating the predictors of the sense of family cohesion perceived by the parents of children with cancer being treated in the hospitals of Shahid Beheshti University of Medical Sciences in Tehran 2019

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Introduction: Childhood cancer in recent decades is still a very challenging health condition for parents. Cancer leaves psychological, social, and economic challenges affecting all aspects of a child's and family's life. It usually includes disruption in family processes, depression and anxiety in family members, spiritual distress, incompatible religious coping, chronic sadness, use of unhealthy coping methods by family members, and changes in their perception. Family is an important concept that health care providers must understand in their understanding of family cohesion. This study aimed to investigate the correlation between the sense of family cohesion perceived in parents of children with cancer.

Method & material: In this cross-sectional correlational study, 125 parents of children with cancer referred to Tehran hospitals in 2019 were selected by available sampling method. Demographic information checklist, social characteristics questionnaire, perceived family cohesion scale questionnaire, coping health questionnaire, Kendall sadness questionnaire and McMaster family functioning questionnaire were used to collect data. Data analysis was done using SPSS version 21 software and Smirnov test, Pearson correlation and regression analysis methods.

Result: A total of 125 parents participated in this study. The majority of housewives (80%). Most of the participants' children were male (62%) and most of these families lived in the city (77%). The average age of the children was 6.32 years. According to the results, the majority of participants have a high degree of perceived family (46%), with a total mean score of 122.33 (32.85). All families suffered from chronic sadness (100%), with a mean total score of 87.18 (11.64). Most families reported poor social support (70%) with a mean total score of 181.53 (80.59).

Conclusion: The present study expanded the concept of parents' perceived sense of family cohesion in nursing knowledge and drew the attention of family-centered care providers to parents of children with cancer and their concerns that directly and indirectly affect the health of the entire family. did The results of the present study can help nursing teachers and trainers to consider and implement the concept of perceived family cohesion and its predictive factors in the theoretical and clinical education of students.

G-1034

Measuring spirituality: tools used in nursing research

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Introduction: Questionnaires for measuring spirituality are essential tools for evaluating the spirituality of patients. These tools are designed to help identify the beliefs, values and spiritual practices of patients, which can equip nurses in providing holistic care to their patients. A wide variety of tools and methods are available to measure spirituality, and nurses and researchers who are interested in spiritual assessment would like to know which tools and approaches to use. This study was conducted with the aim of identifying and classifying the tools used in nursing to measure spirituality.

Method & material: This study is a systematic review that was conducted by searching the international electronic databases PubMed, CINAHL, Web of Science/Web of Knowledge and Scopus, and the Iranian databases Magiran and SID in the period from 2010 to 2022. After evaluating the received articles, 39 studies related to the topic were evaluated in the form of content analysis.

Result: By reviewing the articles included in the study, 23 tools for measuring spirituality were identified. These tools were classified according to the content and method used. In terms of content, the tools are divided into three categories: tools for measuring general spirituality (8 items), for example: spiritual well-being scale (SWBS) and performance evaluation of chronic disease treatment-spiritual well-being scale (FACIT-Sp), religious spirituality (11 items), for example: The Duke University Religion Index (DUREL) and the Brief Multidimensional Measure of Religiosity/Spirituality (BMMRS) and existential spirituality instruments (4 items) that measure the search for meaning and purpose in life and connection with others, for example: the Meaning in Life Questionnaire (MLQ) and spiritual transcendence scale (STS) were classified. In terms of the method used, self-report questionnaires, criteria evaluated by observers, which are performed by the observation of an expert or researcher are classified.

Conclusion: This review increases awareness of the types of tools available to help with spiritual care and, as a result, increases their use in nursing clinical practice. It is suggested that future studies, instead of developing more tools, focus on evaluating the validity and reliability of existing tools for use in nursing research in Iran.

G-1035

Assessment of the knowledge and attitudes of the Iranian medical faculty toward plagiarism

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Introduction: Plagiarism is known as one of the main categories of scientific fraud in various fields of medical sciences. Among the factors that cause scientific plagiarism are work pressure, competition and credibility among researchers, authors, students and professors, and The platform provided by information and communication technology and the Internet. In addition to the nature of unacceptable and unethical behavior of research violations, consequences such as loss of research funding, restrictions on conducting research in the future, and loss of job are also consequences of plagiarism. For this purpose, a research was focused on the relationship between individual factors and awareness and attitude towards plagiarism among Iranian academic staff affiliated with the Ministry of Health.

Method & material: This cross-sectional descriptive study was conducted on 247 participants in 2021 using a demographic questionnaire that collected data on attitudes towards plagiarism and awareness of plagiarism, and the questionnaires were uploaded to Porcelain. Subjects were given informed consent and a link to the questionnaire through WhatsApp for the purpose of the study. The mean scores of the knowledge variables and different fields of attitude were calculated and then the mean values obtained in terms of age, gender and participation in the ethics workshop were compared using univariate tests. Finally, MANCOVA was used considering 5 dimensions of the questionnaire to measure attitude as multi-response variables and independent variables including gender and participation in ethics and knowledge control workshop and age.

Result: The average age of the subjects in this study was 38.9 ± 84 years. 79.4% of the participants were women. In total, 79.8% of people participated in ethics workshops, of which 78% were women and 86.5% were men. The average score of awareness in men and women was 0.19, 1.35 and 1.56. respectively, it was ±0.24, which was more in women than men (PV0.001). The average score of all attitudes was 0.46 and 3.19.

Conclusion: The results of the present study showed that the faculty members of Iranian medical sciences universities had a good level of knowledge about plagiarism, and women had a higher level of knowledge than men. Also, the age difference of participants and participation in ethics workshops was not very effective in improving knowledge about plagiarism.

G-1036

prevalence of thirst in heart failure patients

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Introduction: Heart failure is a global epidemic and its prevalence is increasing. One of the annoying symptoms that heart failure patients experience during treatment is thirst, which is usually ignored by health providers. This may cause non-compliance with the treatment in the restriction of fluid intake and diuretics and worsen the condition of the patients and lead them to pulmonary edema., so we need to know the thirst and its related factors in these patients.

Objective: This study (1) investigates the prevalence of thirst among heart failure patients and (2) determines the factors related to thirst in heart failure patients

Method & material: This study is a systematic review studies that investigated the prevalence of thirst and its related factors in heart failure patients and were published from January 1997 to June 2023. In order to review the conducted research, searching in databases and search engines (SID, Magiran, Pubmed, Scopus, Google Scholar) with the keywords thirst, dry mouth, heart failure and their Persian equivalents were done separately. took To create more thematic connection, the advanced search method was also used in combination. Finally, 203 related studies were obtained, of which 20 articles were selected. Eligibility criteria included: 1- primary studies 2- participants with definite diagnosis of heart failure 3- studies conducted on humans.

Result: Thirst in heart failure patients was different in terms of frequency, intensity, distress and quality. According to studies, between 33 and 75% of patients suffer from thirst. Most thirst occurred in the morning (26%), afternoon (19%) and before sleep (16%). Thirst intensity varied from 23 to 63.67 with an average of 44.75. Thirst distress is reported from 16.2 to 21 with an average of 18.6. Patients find thirst very annoying and often think about thirst during the day. Factors affecting thirst in heart failure patients include: drug treatments, fluid restriction, feelings of depression and anxiety, environmental conditions and functional class based on NYHA criteria, loss of body water, higher body mass index and higher serum urea, salty foods, underlying diseases (kidney failure) and Low ambient humidity.

Conclusion: Thirst as an annoying symptom in heart failure patients has a high prevalence, so we need more research to investigate the effects of thirst on the treatment process and effective interventions to relieve thirst in these patients.

G-1037

Prevalence of depression, anxiety and post-traumatic stress disorder in parents of children with congenital heart disease

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Introduction: Parents of children with congenital heart defects (PCCHDs) are at high risk of mental damage. Delay in identifying these damages in parents can increase the burden of the disease And the complications caused by it, And on the other hand, mental health problems of parents can lead to long-term cognitive problems in children. Therefore, a systematic review of studies related to this topic can help to identify effective interventions to care for the PCCHDs.

Objective: To investigate the prevalence of depression, anxiety and post-traumatic stress disorder in PCCHDs

Method & material: This study is a systematic review of studies that investigated the prevalence of depression, anxiety and post-traumatic stress disorder in PCCHDs and were published from January 1997 to June 2023. To review the conducted research, search information banks and search engines (SID, Magiran, Pubmed, Scopus, Google Scholar) with keywords depression, anxiety, parent, children, congenital heart disease, PTSD and their Persian equivalents were done separately. To create more thematic connection, the advanced search method was also used in combination. Finally, 596 related studies were obtained, of which 25 articles were selected. Eligibility criteria include: 1- Primary studies 2- Published in any date before June 1, 2023. 3- Include a sample of parents with a child with a congenital heart disorder that requires heart surgery.

Result: Mental injuries such as anxiety, depression, and post-traumatic stress disorder have a high prevalence in PCCHDs. According to studies, the prevalence of PTSD varies from 13.5% to 85% with an average of 45%. There is no significant difference in the prevalence of PTSD between mothers and fathers of children with congenital heart disease. The prevalence of depression varies from 20% to 46% with an average of 33.5%. Higher severity of CHD leads to higher depression scores. The probability of depression in CCHD mothers 6 months after delivery is 2.5 times. The prevalence of anxiety is reported to be 25% on average. The average anxiety score of mothers was significantly higher than that of fathers.

Conclusion: The existing systematic review shows that most PCCHDs suffer from anxiety, depression and post-traumatic stress disorder and need standard clinical strategies to manage these symptoms, and No study related to this issue has been found in our country, it seems necessary to conduct more research in this field.

G-1038

Effects of melatonin and N-acetylcysteine (NAC) on NLRP3 levels in the pnumbera area of rat cerebral ischemia model

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Introduction: Ischemia is the most common type of stroke occurring usually due to the middle cerebral artery occlusion (MCAO) and leads finally to the devastating brain damage. Inflammation and immune responses play an important role in the pathogenesis of ischemic stroke by activating various types of traumatic cascades.

Method & material: Wistar rats underwent left side MCAO, and intraperitoneal injection of 50 mg/kg NAC and 5 mg/kg melatonin was performed at 24, and 48 hours after ischemia. Animals were then killed on the fourth day after surgery. The groups were Sham, Ischemic, NAC, Melatonin, and NAC + Melatonin. Neurobehavioraltests,

triphenyltetrazolium chloride (TTC), and ELISA was then used.

Result: As compared to the ischemic group, NAC + Melatonin group showed a higher rate in the mean score of the sensory-motor activity ($p \leq 0.05$). QReal time PCR represented a significant reduction in the expression of NLRP1 in the NAC + melatonin group compared to ischemic group ($p \leq 0.05$).

Conclusion: Based on the data from the present study, it can be concluded that the simultaneous use of NAC and melatonin can improve neurobehavioral function by modulating NLRP1 expression in the ischemic brain cortex.

G-1039

Clinical Features and Outcomes of ICU Patients Confirmed with COVID-19 Infection in Bandar Abbas, Iran: A Single-Centered Retrospective Study

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Introduction: The clinical characteristics of COVID-19 are diverse from a simple common cold symptom to acute respiratory distress syndrome (ARDS). In the present study, we attempted to identify the associated factors in surviving COVID-19 intensive care unit (ICU) patients based on their clinical characteristics.

Method & material: This retrospective study was performed on 114 laboratory-confirmed COVID-19 patients admitted at the intensive care units of Hormozgan University of Medical Sciences, Iran. Demographic, medical, clinical manifestations at admission time, and outcome data were obtained from the patients' medical records.

Result: Of 114 participants included in this study, 64.9% were men. Their mean age was approximately 54 years old, 69.3% of them died and 30.7% of them were discharged. The mortality rate was 2.96 times higher in people who had ARDS compared to their counterparts, 1.37 times higher in people under non-invasive ventilation, and 3.56 times higher in people under invasive mechanical ventilation. Three common underlying diseases among them were hypertension in 34.2%, diabetes in 23.7%, and cardiovascular diseases in17.5% of them. Alive and dead patients significantly differed only in following laboratory tests: D-dimer, urea, troponin, Procalcitonin, and ferritin.

Conclusion: The mortality rate among COVID-19 patients admitted to ICU is generally high. Dyspnea, as the initial presentation and comorbidity, especially hypertension, diabetes, and cardiovascular diseases, may be associated with higher risk of developing a severe disease and consequent mortality. Therefore, D-dimer, urea, troponin, Procalcitonin, and ferritin at the time of hospital admission could predict severity of the disease and its probable mortality.

G-1041

The relationship between the anxiety of contracting covid-19 and the feeling of loneliness with the moderating role of religious orientation among Iranian elderly

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Introduction: Mental health is essential to improve the quality of life in old age. The feeling of loneliness can be the beginning of depression and forgetfulness and affect the continuation of life. Therefore, the present study was conducted with the aim of determining the moderating role of religious orientation in the relationship between the anxiety of contracting Covid-19 and the feeling of loneliness in the elderly of Karaj.

Method & material: This descriptive-correlation study was conducted cross-sectionally on 500 elderly people in 1399. The samples were selected by cluster method in the city of Karaj. Inclusion criteria included age 60 years and older and the ability to answer questions without the help of another person. Data were collected using a checklist of demographic information, anxiety questionnaires from covid-19, Alport and Ross religious orientation, and Russell's sense of loneliness. The SEM structural equation modeling method was used to determine the mediating role of religious orientation in the relationship between the anxiety of contracting Covid-19 and the feeling of loneliness.

Result: The average age of the elderly participants in the study was 70.82 ± 7.99 years. Among the participants of this study, 225 (45%) were women and 275 (55%) were men. The mean value and standard deviation of feeling alone are 49.50 and 5.09 respectively, the anxiety level of covid-19 is 42.19 and 6.56 respectively, the mean value and standard deviation of mental anxiety are 21.20 and 3.90 respectively. Physical anxiety was 20.99 and 4.02 respectively. A significant relationship was found between mental anxiety and loneliness ($p=0.0000$) and religious orientation with loneliness ($p=0.000$, $\beta=-0.584$). The results did not confirm the moderating role of religious orientation in the relationship between the anxiety of contracting the covid-19 virus and the feeling of loneliness ($p = 0.999$, $\beta = 0.000$).

Conclusion: The results of this study did not confirm the moderating role of religion in the relationship between covid-19 anxiety and loneliness. It is suggested to pay more attention to the strengthening of religion as a preventive factor for the occurrence of problems caused by the feeling of loneliness.

G-1042

Investigation of sleep quality, quality of life and depression in patients with post-stroke hemiplegic shoulder pain (HSP)

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Introduction: Hemiplegic shoulder pain (HSP) is one of the four most common disorders after stroke. This condition is associated with a decrease in hand function and leads to disruption in daily activities. Also, this complication causes disturbances in mobility and maintaining balance and is associated with a high prevalence of mental and physical disorders in the patient. Therefore, this study was conducted with the aim of determining the relationship between pain intensity, sleep quality, depressive symptoms and quality of life in patients with HSP.

Method & material: This cross-sectional study was a descriptive study. The research population consisted of 164 patients with HSP who had referred to the physiotherapy, rehabilitation and neurology clinics of Bo Ali Sina Hospital in Qazvin in 1400 to perform palliative and rehabilitation measures. The samples in this study were selected according to available methods. The most important inclusion criterion was having a history of HSP after stroke for at least one month. Data collection tools included demographic information questionnaire, numerical pain rating scale (NPRS), SF-36 quality of life questionnaire, Pittsburgh sleep quality index and short Beck depression questionnaire. Data analysis was done using SPSS version 25 software and using descriptive statistics and logistic regression.

Result: Data analysis showed that 60% of participants were male, 80.6% were married and 75% were literate. The statistics showed that the mean and standard deviation of the quality of life score is 4.213 ± 46.25 (at a low level). Also, the mean and standard deviation of depression was 12.375 ± 3.569 (at medium level), the mean and standard deviation of sleep quality was 9.901 ± 3.213 (at low level), and the mean and standard deviation of pain intensity was 4.689 ± 2.547 (at medium level). The chance of having a favorable quality of life for people with severe and moderate depression was 0.461 and 0.551 times that of normal people, respectively. Also, the chance of having a favorable quality of life for people with severe and moderate pain was 0.538 and 0.605, respectively.

Conclusion: The results of this study showed that patients with HSP suffer from different degrees of pain after stroke. Also, the variables of education level, duration of HSP, sleep quality, depression and pain intensity were among the influencing factors on quality of life. It is recommended that rehabilitation and support interventions are carried out in the field of improving the quality of life and the quality of sleep and mood.

G-1043

Comparison of nitrogen and phosphorus removal efficiency from chicken slaughterhouse effluent by Chlorellavulgaris and Spirulina algae

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Introduction: Poultry slaughterhouse effluent contains high organic load and phosphorus nitrogen, therefore it is one of the most polluted industrial effluents (1) and if it is discharged without adequate treatment, it is a serious threat to the environment. Besides being able to remove organic pollutants and pathogens, algae play an effective role in removing nitrogen and phosphorus from wastewater. The aim of this study was to compare the amount of nitrogen and phosphorus removal from chicken slaughterhouse wastewater by two algae Chlorellavulgaris and Spirulinaplatensis.

Method & material: In this experimental study, the required effluent was prepared from a chicken slaughterhouse in Qazvin province and its quality characteristics were determined according to the instructions in the book of standard methods for water and wastewater tests. Chlorellavulgaris and Spirulina platensis algae were obtained from the University Jihad Research Center located in Karaj. Chlorellavulgaris was grown in BBM medium and Spirulinaplatensis in Zarrouk medium. Then, 100 ml of algae and 145 ml of sterilized effluent from the chicken slaughterhouse were poured into a 500 ml Erlenmeyer flask. This reactor was placed under the hood in a sterile environment using an artificial light source with a light intensity of 3000 lux and in 16 hours of light and 8 hours of darkness for 15 days, and the related parameters included total nitrogen, total phosphorus, protein and algae concentration in The duration of the 5-day, 10-day and 15-day period was measured

Result: The amount of nitrogen and phosphorus removal by Chlorellavulgaris algae was 90% and 70%, respectively, while the amount of nitrogen and phosphorus removal by spirulina was 93% and 100%, respectively. During the experiment, the growth rate of algae increased and the ability to remove nutrients increased with the increase of the algae population. Also, the amount of algal protein increased during the growth period with the increase of algal nitrogen.

Conclusion: Spirulinaplatensis algae has a greater ability to remove nitrogen and phosphorus compared to Chlorellavulgaris. Also, due to the high absorption properties of these two algae, they can be used to treat wastewater containing nitrogen and phosphorus nutrients

G-1044

Evaluation of HOTAIR and MALAT1 long non-coding RNAs; expression in HL60 cell line after treatment with normal BM-MSC derived exosomes

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Introduction: Acute myeloid leukemia (AML) represents a group of malignant blood disorders that originates from clonal over-proliferation and differentiation failure of hematopoietic precursors, resulting in the accumulation of non-functional cells called blasts in the bone marrow and bloodstream, thereby obstructing normal hematopoiesis. Mesenchymal stem cells, being a crucial component of the tumor microenvironment, exert diverse effects on tumor cells through direct and indirect interaction. Exosomes are one of the means of indirect intercellular communication, which are released from different types of cells and tissues, and their various content enables them to exert significant impacts on the target cells. Lnc-RNAs form a part of the exosomal nucleic acid content, and can either suppress or promote cancer by modulating their expression levels. Our study aims to investigate the effects of bone marrow mesenchymal stem cells (BMSCs) derived exosomes on HL60 AML cells by altering the expression levels of lncRNAs.

Method & material: Initially, mesenchymal stem cells of healthy bone marrow were cultured with FBS-free α-MEM culture medium. Then the supernatants of the cultured cells were collected. Exosomes were isolated from the culture medium with EXOCIB kit, which is based on a precipitation method. The validation of exosomes was performed in three steps: morphological analysis using TEM, size evaluation using DLS, and CD marker identification using flow cytometry. Subsequently, the HL60 AML cell line was treated with exosomes to determine the effect of their contents. The cell metabolic activity was evaluated by MTT assay, while the cell cycle progression and apoptosis were assessed by flow cytometry. Furthermore, quantitative real-time PCR was conducted to determine the gene expression of HOTAIR and MALAT1 lncRNAs. Finally, significant differences were calculated using analytical tests.

Result: MTT assay and flow cytometry analysis revealed that BM-MSCs-derived exosomes considerably suppressed cell metabolic activity and cell cycle progression, and also effectively induced apoptosis of HL60 cells. HOTAIR and MALAT1 expression levels were also significantly decreased in treated HL60 AML cells compared to their untreated counterparts.

Conclusion: BM-MSC-derived exosomes suppress cell cycle progression and metabolic activity and simultaneously elevate apoptosis ratio in HL60 cells, likely by reducing the expression levels of MALAT1 and HOTAIR. These findings suggest that BM-MSC-derived exosomes might serve as potential supportive therapies for leukemia.

G-1045

The role of artificial intelligence (AI) in medical laboratory in next decade

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Introduction: Artificial intelligence (AI) is revised to leverage computers and machines to imitate the problem-solving and decision-making capabilities of the human brain. Now we face the question of what happens if we implement AI in laboratories? The implementation of AI in laboratories will result in a significant increase in the speed and efficiency of test diagnosis, allowing for the estimation of more parameters in a shorter amount of time. However, this change in technology also demands an academical shift about how AI equipped laboratory systems operate. While automation can greatly enhance efficiency, it is crucial to recognize that AI should not be regarded as a substitute for human expertise, but rather as a tool to supplement and improve it. Therefore, human professionals will still be essential in the laboratory workforce. By combining the expertise of humans and the capabilities of AI, faster test diagnosis and improved healthcare quality can be achieved.

Method & material: We navigated the literature search using the terms of Artificial Intelligence and medical laboratory in the databases (PubMed, Scopus, EMBASE, and Science Direct) until May 25, 2023.

Result: Laboratory specialists and technicians play a crucial role in improving analytical capabilities and diagnostic accuracy. With the help of automation and other innovative technologies, laboratory turnaround times are becoming faster and more efficient, allowing quicker diagnoses and treatment plans. As laboratory sub-specialization continues, there are more opportunities for professionals to excel in their chosen field, and the complexity of tasks undertaken by specialists and technicians is continuously increasing. Overall, the laboratory industry is constantly evolving, with new advancements and innovations shaping the future of diagnostics and healthcare. The use of AI in combination with increased automation in laboratory workflows can generate large amounts of clinical data which can be used to develop new diagnostic and prognostic models.

Conclusion: As AI becomes widely accessible, laboratory specialists can take advantage of this technology to streamline their processes, reduce errors, and enhance their overall efficiency. With its ability to analyze vast amounts of data quickly and accurately, AI can help laboratorians make more informed decisions. According to the review research, although AI can assist experts to increase the speed and accuracy of tests and perform different ranges of tests at the same time, it cannot replace them wholly. The solution is to make optimal use of the positive aspects of these developments in order to increase society's level of health, instead of resisting the progress of science.

G-1047

Investigating the importance of travel medicine and health tourism in the world: A systematic review

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Introduction: Travel medicine and health tourism, which is carried out with the aim of seeking health care to improve health, is one of the most important parts of the tourism industry. This systematic review was conducted with the aim of investigating the importance of travel medicine and health tourism in the world.

Method & material: In this systematic review, scientific articles were collected by searching PubMed, Embase, Web of Science and Google Scholar databases with the keywords medical tourism, Health tourism, Health Care and Travel medicine from November 2013 to April 2023. The criteria for the inclusion of articles in the study is to provide the full text of the study on travel medicine and health tourism. The quality assessment and validation of the selected articles were done using the STROBE checklist by 2 authors of this article separately. A total of 18 articles with inclusion criteria were qualitatively analyzed using thematic analysis to identify the main topics. The analyzed articles were descriptive observational, review and analytical articles.

Result: Travel medicine and health tourism focus on activities and practices that help a person's physical, mental, psychological and emotional health. Medical tourism presents important concerns and challenges as well as potential opportunities, and by creating a new financial field as an alternative source of capital with a rapidly growing market share worldwide, it has a significant contribution to increasing the income of countries. On the other hand, standard services are one of the most basic infrastructures for travel medicine and health tourism. Health tourism aims to use natural resources and services, health care and the benefit of healing nature for treatment, relief from the tensions of everyday life and rejuvenation. Travel medicine and health tourism are increasingly expanding and gaining popularity, and developing, developed and even underdeveloped countries have invested to increase this market.

Conclusion: Travel medicine and health tourism as a national strategy is aimed at increasing the income of countries and promoting health in the society, for its expansion, the necessary infrastructures, services and facilities must be created.

G-1048

Investigating the role of environmental health in the prevention of legionellosis: A systematic review

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Introduction: Legionnaires' disease is a type of pneumonia caused by Gram-negative and spore-free Legionella pneumophila bacteria. This bacillus has been isolated from many water sources. The outbreak of legionnaires' disease continues to occur all over the world, therefore, in this study, the role of environmental health in the prevention of legionnaires' disease has been investigated.

Method & material: A systematic review of scientific articles was conducted by searching PubMed, Embase, Web of Science and Google Scholar databases with the keywords Legionellosis, Legionnaires disease, Legionella, Environmental Health and Health Care, for the years 2002-2023. The criteria for including articles in the study is to provide the full text of the study on the role of environmental health in the prevention of legionellosis disease. The quality assessment and validation of the selected articles were done using the STROBE checklist by 2 authors of this article separately. A total of 28 articles were reviewed and analyzed based on the inclusion criteria using thematic analysis with a qualitative approach to identify the main themes. The reviewed articles were descriptive observational (cross-sectional), systematic review and analytical (case-control) articles.

Result: Severe pneumonia and systemic infection caused by Legionella bacteria is Legionnaire's disease, which refers to the form of Legionnaires' pneumonia. Water is the main natural reservoir of Legionella and the pathogen is found in many different natural and artificial water environments such as cooling towers or water systems in buildings including hospitals. Cleaning, descaling, removal of biofilm, decontamination, temperature control and regulation (less than 20°C and more than 60°C) and preventing water stagnation in tanks and water networks are among the effective and preventive environmental health measures in monitoring water supply facilities and preventing This is a disease. Environmental sampling of water distribution systems for Legionella can be an important component of risk management in the prevention of this disease.

Conclusion: Considering the health problems of legionella, it is emphasized need to monitor the operation and maintenance of water facilities based on relevant standards and indicators to minimize the possibility of bacterial growth and prevent legionellosis.

G-1049

The Role and Importance of environmental psychology in health promotion: A Systematic Review

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Introduction: Mental well-being is a part of human health, which the science of environmental psychology, using environmental science, investigates the relationship between man and the world and the impact of the natural and man-made environment on people, in order to change the surrounding environmental factors, for human mental health and improving health. he does. In this study, the role and importance of environmental psychology in health promotion have been discussed.

Method & material: In this systematic review, scientific articles published in 2008-2023 were collected by searching PubMed, Embase, Web of Science, and Google Scholar databases with the keywords Environmental Psychology, Environment, Psychological, and Environmental Behaviour. The criteria for the inclusion of articles in the study is to present the full text of the study on important topics in environmental psychology. The quality assessment and validation of the selected articles were done separately by the authors of the present article using the STROBE checklist. A total of 16 articles were reviewed and analyzed based on the inclusion criteria using thematic analysis with a qualitative approach to identify the main themes. The reviewed articles were descriptive observational (cross-sectional), review and analytical (case-control) articles.

Result: Various environmental levels, including man-made and natural spaces, have important connections with psychology by influencing how people feel, think and behave. Important topics in environmental psychology include the negative or positive effects of spaces such as environmental stressors (noise or crowding) on the people who live in them. Time spent in natural environments and proximity to green spaces are associated with measures of well-being, including lower symptoms of anxiety and depression. Nature has positive effects on mental health. Being in natural environments can lower blood pressure and the level of the stress hormone cortisol. Psychological ideas can be useful in mitigating and countering the effects of climate change. Climate change and moderate temperature increases are associated with increased distress and mental health problems. Environmental psychology helps solve problems in society by researching, presenting and developing new structures and methods for analyzing the links between the environment and human behaviour.

Conclusion: The methods of environmental psychology and the design of interventions to promote behaviours and choices that reduce risk and adapt to risk, help the health of the environment and humans.

G-1050

Factors affecting job burnout in Iranian nurses: systematic review

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Introduction: A human workforce is the most valuable resource for organizations, and paying attention to the mental and physical health of employees is important for increasing organizational productivity. Job burnout, encompassing emotional exhaustion, depersonalization, and reduced personal fulfillment, emerges as a critical element influencing employees' mental health. Considering the inherent challenges of the nursing profession, nurses often experience job burnout, which can result in negative consequences such as compromised patient care quality and increased job dissatisfaction. The objective of this study is to explore the significant factors contributing to job burnout among nurses in Iran.

Method & material: By utilizing the keywords job burnout, nurses, and occupational stress, we conducted a comprehensive search across various databases including Google Scholar, Scopus, Magiran, SID, and PubMed. The search was conducted within the timeframe of 2010 to 2023 and resulted in a thorough review of 20 articles pertaining to the subject matter.

Result: Our study findings revealed a range of factors that contribute to the occurrence of burnout. These factors include high work volume and long hours, rotating shifts, inadequate staffing, continuous patient interaction, lack of managerial support, low salaries, limited opportunities for career advancement, communication with colleagues, exposure to violence, high patient expectations, occupational hazards, task interference, inequitable reward distribution, feelings of worthlessness, and conflicting behaviors. Furthermore, our research indicated that the prevalence of burnout varies across different countries and cities due to individual, social, and organizational factors, as well as the work environment. Specifically, nurses working in dialysis and emergency departments were found to experience the highest levels of burnout. Conversely, certain factors such as advanced age, increased work experience, having children, a sense of worth, optimism, and job satisfaction were identified as potential mitigating factors for job burnout.

Conclusion: To alleviate job burnout among nurses, specific measures can be undertaken. These include enhancing work and performance stability, establishing clear guidelines for nurse employment, and implementing workload distribution strategies. Additionally, structural modifications within the work environment, such as reducing the nurse-to-patient ratio, slowing down the pace of work, prioritizing managerial attention towards nurses' issues, and granting nurses greater autonomy in their work schedules, can prove beneficial in preventing nurse burnout.

G-1052

Mediterranean–like diets in multiple sclerosis: a systematic review

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Introduction: Mediterranean diet style is a plant-based diet with high-fiber consumption and lower intake of saturated fatty acids which is proposed to have beneficial effects in patients with multiple sclerosis (MS). This investigation aims to explore the impacts of this style of diet on patients with MS, based on clinical evidence.

Method & material: This study was conducted following the 2020 version of the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) statement. Both interventional and observational clinical studies which evaluated the effects of Mediterranean-like diets on MS patients were considered for inclusion. Review articles, letters, commentaries, case reports, non-English papers, and conference abstracts were excluded. PubMed, Web of Science, Scopus, and EMBASE databases were searched until March 23rd, 2023, and risk of bias (RoB) in randomized-controlled trials (RCTs) was evaluated based on the second version of the Cochrane RoB assessment tool (RoB.2). In addition, for the observational studies, Joanna Briggs Institute (JBI)'s critical appraisal tools were utilized.

Result: Of 161 records that were screened in the title/abstract stage, 13 reports of 11 studies were included in the systematic review. Three RCTs (including 1 pilot RCT), and eight observational studies reported the effects of Mediterranean-like diets on patients with MS. The sample sizes in clinical trials vary between 36 and 147 and for observational studies it was between 30 to 563 patients. Evidence suggested positive effects of a Mediterranean-style diet on inflammatory status and MS-related symptoms such as fatigue, quality of life, attack rate, and cognitive dysfunction.

Conclusion: This systematic review pointed out possible beneficial effects of Mediterranean-style diets on MS patients. The limited number of well-designed RCTs was the main limitation of this study; therefore, large-scale multicentral interventional studies are suggested. Variety in the assessed outcomes, study designs, and groups of the studies prevented meta-analysis which was the other limitation of this study.

G-1053

Comparison of multimedia training method and telephone follow-up with the usual method on adherence to treatment regimen in patients with high blood pressure.

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Introduction: Adherence to treatment regimen plays an important role in preventing the complications of high blood pressure disease, it is necessary to use effective methods of education and telephone follow-up in order to improve adherence to the treatment of these patients. Therefore, the present study was conducted with the aim of comparing the method of multimedia training and telephone follow-up with the usual method on adherence to the treatment regimen of patients with hypertension.

Method & material: In this experimental study that was conducted for 6 months in 2015, 160 patients referred to the clinic and heart departments of one of the hospitals located in the southeast of Iran were selected in an accessible manner and They were randomly divided into intervention and control groups. The intervention consisted of multimedia training, which was provided in three sessions followed by telephone follow-up. The control group received usual care. The research tools included demographic characteristics and therapeutic adherence questionnaire. Data were collected before, immediately and one month after the intervention and analyzed with SPS version 19 software through independent t-tests, chi-square and non-parametric tests, significance level 0.05 Was.

Result: There was a significant difference between the two groups in the adherence to the treatment regimen immediately and one month after the intervention (P 0.001).

Conclusion: Conclusion: Multimedia training and telephone follow-up has been able to significantly increase the adherence to the treatment regimen. It is suggested that nurses and health care providers use this method to facilitate the process of educating patients in order to improve compliance with the treatment of patients with high blood pressure.

G-1054

Application of artificial intelligence algorithms in colorectal cancer diagnosis: a systematic review

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Introduction: Colorectal cancer is one of the most common types of cancer in the world, affecting millions of people every year. To achieve an accurate and timely diagnosis of this disease, the use of artificial intelligence algorithms can be very effective. Machine learning models have the ability to detect colorectal cancer from input data using these algorithms. This can lead to a significant improvement in the detection of colorectal cancer and, as a result, increase the chances of recovery and survival for patients. This article explores the application of artificial intelligence algorithms in the detection of colorectal cancer.

Method & material: A PRISMA checklist was used for design this systematic review. Articles were obtained by searching the PubMed, Web of Science, Scopus, Google Scholar, and BMC databases with keywords such as Artificial intelligence, Machine learning, Automated detection, and Colorectal cancer. First, the titles and abstracts of the retrieved articles were checked to remove irrelevant ones. Then, the remaining articles were screened based on inclusion and exclusion criteria, and finally, the quality of the selected articles was evaluated. In total, 11 observational studies were included in this systematic review.

Result: The studies had good quality and the STROBE checklist was used to assess their quality. In total, 11 studies were conducted in six different countries, with input data consisting of laboratory data in six studies and imaging data in five studies. The algorithms used in the studies included LR, SVM, KNN, RF, DGMata, CNN, DCNN, and more. In one study, a new algorithm for detecting the stage of colorectal cancer and immune cell infiltration into cancer cells, called Deep immune Score, was introduced. The studies showed that most algorithms had a diagnostic accuracy of over 70% relative to the input data, with deep neural networks showing the best performance among other methods.

Conclusion: Colorectal cancer is a major global health concern , and using AI algorithms for its detection can be crucial in early prevention and treatment. Studies reveal that deep learning systems and neural networks have high accuracy and sensitivity in predicting the risk and detecting colorectal cancer. Therefore, employing AI algorithms in the detection of colorectal cancer can greatly aid in early identification and enhance treatment outcomes. However, further research and collaboration among medical specialists and AI engineers are necessary.

G-1055

The effect of virtual training on warfarin therapy on INR control: a quasi-experimental study

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Introduction: Heart valve diseases are of great importance due to their chronic, complex, and progressive nature. These patients are under warfarin therapy, and one of the biggest problems after heart valve replacement is non-adherence to warfarin therapy. One of the basic needs of patients is the importance of regular monitoring of anticoagulants. For intermittent monitoring, telenursing technology can be used. Therefore, this study was conducted with the aim of the effect of virtual education on warfarin therapy on INR control in patients after heart valve replacement in Yazd.

Method & material: This research is quasi-experimental in that 100 patients taking warfarin in admitted hospitals of Shahid Sadoughi University of Medical Sciences were randomly assigned to control and intervention groups. 51 people were in the intervention group and 49 people were in the control group. During the 4 months of training and follow-up, training was given to the intervention group every week, and for 4 months, the participants in the control group did not receive any messages. Also, during the course, for the intervention group, follow-up was done by phone to follow up on the adherence to the treatment, and the necessary feedback was given to the patients. At baseline and 4 months after the intervention, the INR level was measured. Data were analyzed using independent t-test and chi-square.

Result: The findings showed that the average INR score in the control group is 2.82 ± 0.503 before the intervention and 2.86 ± 0.495 after the intervention, and this difference is not statistically significant (P-value = 0.180). Also, the average INR score in the intervention group is 3.57 ± 0.677 before the intervention and 0.641 ± 2.3 after the intervention, which is statistically significant (P-value0.001).

Conclusion: According to this study, It is suggested that nursing managers create a situation for better and more accurate follow-up in chronic patients so that follow-up and training can be done virtually and prevent possible problems of patients related to lack of awareness.

G-1056

A review of the application of Newman system model on the improvement of disease complications

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Introduction: nursing models are performance guides and standards to improve quality and improve satisfaction and reduce symptoms of various diseases in patients. One of the most efficient nursing models is Newman, which can be effective in improving the quality of care and reducing the complications of diseases. Newman's model focuses on the individual as a system and his response to stressors. Therefore, this model can be used as a nursing performance guide. In order to check the effectiveness of this model in different disorders, we decided to conduct a review with the aim of applying Newman's model to improve disease complications

Method & material: In order to find related studies and sources from the abstract and full text of 30 articles in the databases of PubMed, Scopus, web of science, SID without time limit and type of article with keywords Newman model, nursing models, Newman systemic model and equivalent Their English was extracted, and by removing articles without full text and letters to the editor, finally 15 articles were received.

Result: The results of previous studies indicated that the use of Newman's model can have positive and useful effects in the care and reduction of patients' symptoms. In the conducted studies, the application of this model was confirmed in reducing the delirium of patients hospitalized in special departments and reducing the care burden of dementia patients. In other studies, the application of this model in improving self-efficacy and improving fatigue and social isolation, improving self-confidence and generally improving the quality of life in patients with chronic diseases such as hemodialysis was determined.

Conclusion: According to the studies conducted, it can be concluded that the implementation of the Newman model as a guide to nursing practice can improve the quality of care and improve and reduce the symptoms of patients in various diseases and improve their quality of life. However, the creation of simplified protocols from the Newman model It is necessary for different disorders to be able to use and benefit from this complex model at the bedside.

G-1057

Application of models and theories of health education and health promotion in childbearing interventions in Iran: A systematic review

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Introduction: childbearing considered one of the most important phenomena that determine population changes and fluctuations.

The rapid decrease in the total fertility rate in Iran in recent decades has created serious demographic challenges.One of the solutions that is effective on the factors that promote childbearing behavior in couples is the use of theories and models of health education and health promotion in childbearing interventions.

Method & material: The present study was conducted using a systematic review method and using all Iranian research articles with the aim of applying models and theories of health education and health promotion in childbearing interventions, that were published in domestic and foreign journals. To access the Persian articles inside the country and Iranian articles published abroad, related domestic databases (Magiran, SID), foreign (Web of Science, Scopus, PubMed) as well as Google Scholar search engine, from the beginning to June 8, 2022 were investigated. For searching the required articles, the following key words were used: educational intervention, model/theory, health education, health promotion, and childbirth, childbearing, fertility, reproduction

Result: Among the researches found in the initial search, 7 studies related to the purpose of the study were selected. 6 out of 7 studies used the theory of planned behavior to carry out childbearing interventions,and in all 6 studies,the educational intervention based on this theory has an effect on women's fertility intention. Another article used the transtheoretical model, which had a significant impact on women's fertility decision-making.Except for one study in other studies,the target population was only women

Conclusion: Applying theories and models of health education can have a greater impact on fertility intentions and informed decisions of people for more childbearing.The diversity of the application of these models and theories in intervention studies was limited,While the effectiveness of training increases with this diversity.Men play a key role in the childbearing process,which should not be neglected in the design of educational interventions

G-1058

Computational Analysis of Nonsynonymous Single Nucleotide Polymorphisms (nsSNPs) in Genes Associated with Male Infertility

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Introduction: Male infertility is a complex multifactorial disease with highly heterogeneous phenotypic manifestations ranging from complete absence of sperm in the testes to distinct changes in sperm quality. Identifying the genetic causes of male infertility is of clinical importance because it can have important consequences on the reproductive and general health of the patient. In this regard, the evaluation and analysis of the variants related to the genes reported in relation to male infertility can be an important step in determining and prioritizing the genes related to various reproductive disorders in men. Therefore, the present study was designed with the aim of evaluating the functional effects of non-synonymous single nucleotide polymorphisms (nsSNPs) in a set of candidate genes related to infertility phenotype in men, using different bioinformatics and computational biology methods.

Method & material: To perform this study, we extracted SNPs that occurred in the coding region of the USP26 gene and resulted in amino acid changes (nsSNPs) from the database of the International Genomics of Male Infertility Consortium (IMIGC). In the first stage of evaluation, the functional effects of nsSNPs were analyzed using SIFT, PolyPhen-2, PROVEAN and MutationAssessor bioinformatics tools. The nsSNPs predicted by all four tools as dangerous substitutions were entered into the next step of evaluation. In the next step, CADD, MutPred2, SuSPect and PhD-SNP tools were used to predict the pathogenicity of nsSNPs. The nsSNPs that were identified as pathogenic by all four tools were analyzed with I-Mutant 3.0 and ConSurf tools in terms of how they affect protein stability and the degree of evolutionary conservation of amino acid positions.

Result: This study was conducted for identifying dangerous nsSNPs in the USP26 gene related to male infertility phenotype and predicting their pathogenic effect on protein function and stability. In this study, twenty-three nsSNPs were analyzed in silico with different bioinformatics tools such as SIFT, PolyPhen-2, PROVEAN, MutationAssessor, CADD, SuSPect, PhD-SNP, MutPred2, I-Mutant 3.0 and ConSurf. In total, three dangerous nsSNPs (F42S, L346H and Q480L) were predicted using SIFT, PolyPhen-2, PROVEAN and MutationAssessor tools and further analyzed by CADD, SuSPect, PhD-SNP and MutPred2 tools, which finally F42S was identified as the most dangerous nsSNP. This nsSNP, which decreases USP26 protein stability, occurred at a relatively conserved amino acid position.

Conclusion: The results of this study can be used in clinics and could be suitable for prognosing and diagnosing male infertility in early years of life.

G-1059

The Prevalence of Depression among Medical students of Isfahan University of Medical science and its Relationship with Sleep Quality and Internet Addiction

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Introduction: Depression is a serious illness affecting the health, enjoyment and professional lives of many medical students, regardless of their geographical location. Since sleep quality and Internet addiction are significantly associated with depression, we evaluated them in this study. The aim of this study was to assess the relationship between sleep quality , Internet addiction and depression among medical students of Isfahan University of Medical Sciences at 2022.

Method & material: A cross-sectional study among 160 medical students of Isfahan Medical Faculty whom where selected by convenience sampling, was conducted. Depression, Internet addiction and sleep disturbance was assessed using Beck depression inventory (BDI-II), Young Internet Addiction Test (YIAT) and Pittsburg Sleep Quality Index (PSQI).

Result: The majority of respondents reported either controlled use of the internet or mild problems with internet use. However, 8.1% of respondents reported significant problems due to internet use. Further, 67.3% reported poor sleep quality, and 51.9% screened positive for depression. In both chi-square and logistic regression analyses, internet addiction was significantly associated with poor sleep quality and depression.

Conclusion: We found that a high percentage of undergraduate students met criteria for internet addiction, poor sleep quality and depression. More than half of the students had at least one of these problems. Compared to the study conducted in 2006 an increase in the prevalence of depression is seen, as is a small but significant proportion of them reported problematic addictions due to internet use .This indicates the need to address the issue of depression and its related factors among medical students. Furthermore, Internet addiction is associated with both depression and poor sleep quality, highlighting the need to develop effective interventions to target all three problems holistically.

G-1060

Non-pharmacological methods for reducing labor pain: A systematic review and meta-analysis

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Introduction: Given that childbirth is a natural process, the use of non-pharmacological methods to reduce labor pain can help women cope with labor pains naturally. Despite the advancement of technology and access to powerful drugs, the use of non-pharmacological methods for reducing labor pain is still under discussion and investigation. Therefore, many researchers in the field of women's health are working to investigate these methods and obtain new results in this regard. In this article, we will conduct a systematic and meta-analysis review of non-pharmacological methods for reducing labor pain.

Method & material: In this systematic review and meta-analysis, sources such as PubMed, Scopus, Web of Science, Google Scholar, Embase, and Cochrane were systematically searched. To find research articles, keywords such as pain labor , non-medicinal , complementary therapies , and clinical trial were used, and Persian databases were also searched. The CONSORT checklist was used to evaluate the quality of the retrieved articles. After screening based on inclusion and exclusion criteria, ultimately 13 clinical trials were included in our study.

Result: The studies were conducted in 8 different countries and therapeutic methods such as herbal medicine, aroma therapy, acupuncture, distraction, electrical stimulation, massage therapy, reflexology, and touch therapy were used in the studies. Out of 13 studies included in the systematic review, 9 studies were included in the meta-analysis based on the extracted data status, and only three articles underwent a systematic review. According to the analysis, there was a significant difference between the groups that had used non-pharmacological pain reduction methods and the control groups (SDOM=-1.514, CI=-1.237 to -1.729, p0.001). Additionally, combined use of acupuncture with massage therapy resulted in the greatest reduction in labor pain among the non-pharmacological methods that were studied (SDOM=-2.407, CI=-1.742 to -3.072, p0.001).

Conclusion: Based on the available studies and the conducted systematic review and meta-analysis, methods such as massage, aromatherapy, acupuncture, distraction, electrical stimulation, therapeutic massage, reflexology,and touch therapy can be effective in reducing labor pain. Additionally, a combination of these methods can simultaneously help mothers reduce labor pain more effectively than using each method individually. However, to ensure these results are accurate and reliable, it is better to conduct further research in this field.

G-1061

Study the challenges of using the surgical safety checklist : a systematic review

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Introduction: Today,surgeries are an integral part of health care all over the world, and due to the significant development of technology,they have become more complex and efficient compare to the past.However,the occurrence of adverse effects during surgery accounts for 66% of half of the side effects. However,based on studies, many of these consequences are preventable. Considering the high importance of patient safety,which is always one of the main indicators of risk management in the clinical governance system, (WHO) in 2008 published (surgical safety checklist) in order to strengthen safety performance. improved communication and published a working group between clinical disciplines,which,based on the data,has been associated with a reduction in complications and mortality due to surgery.The purpose of this study is to investigate the challenges in the effective implementation of this checklist and provide solutions for its more effective implementation.

Method & material: a systematic review of Persian and English articles in Pubmed,Web of Science,Scopus and Google Scholar Using the keywords Surgical Safety Checklist , WHO , Side Effects and Mortality in both persian and English languages from 2015 onwards,78 articles were obtained,26 articles were in line with the study and were carefully reviewed.were placed and their positive and negative points were analyzed and led to this article.

Result: Factors such as crowding in the operating room,lack of staff,lack of responsibility,lack of knowledge of the surgical team about the content of the checklist,the presence of ambiguity in some cases after translation,the negative attitude of the team members towards the checklist as a useless tool are among the most challenges raised in using this It was a tool.More importantly, inappropriate use of safety checklists can have a negative passive effect on patient safety.According to the mentioned cases, continuous training,effective awareness, localizing the checklist,applying changes according to the country's medical centers and finally informing all the operating room staff about the benefits of correct use and the consequences of negligence in using the safety checklist were among the proposed items in the studies.

Conclusion: attention to the cases presented in this research and the potential impact of the correct use of the surgical safety checklist in reducing surgical complications,the availability of the necessary resources for the promotion and localization of this checklist,attention and cost will be spent on optimizing, integrating and finally communicating nationwide.It not only does not cause waste of resources, but also provides the opportunity to save the costs of the health of the society.

G-1062

Investigation of the association between Hepatitis B vaccine and Multiple Sclerosis: A systematic review

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Introduction: Vaccines have been one of the most important achievements in the prevention of various diseases. Hepatitis B vaccine is a type of vaccine that prevents hepatitis B infection. Hepatitis B is a viral disease that can lead to cirrhosis and liver cancer in a chronic state. Hepatitis B vaccine has population coverage of more than 95%, but recently, several reports have caused doubts that hepatitis B vaccine may be related to multiple sclerosis (MS). MS is an autoimmune demyelinating disorder that affects the brain and spinal cord. The study aims to investigate the available evidence on the association between hepatitis B vaccine and the risk of MS.

Method & material: This study is based on PRISMA guidelines. A comprehensive search was conducted in online databases including PubMed, Web of Science, Scopus, and Google Scholar. The keywords were Hepatitis B vaccine , “MS (Multiple Sclerosis) , and “Disseminated Sclerosis . The search covered the period from 2010 to 2023. No language restrictions were considered. A total of 76 results were found and 8 studies completely related to the topic were selected and evaluated. Review articles, book chapters and conference papers were excluded from the study.

Result: 8 selected studies were 3 case-controls, 1 case-report, 1 cross-sectional, 1 prospective, 1 cohort study and 1 historical article. Out of three case-control articles, two studies rejected the association between hepatitis B vaccine and risk of MS, the other one showed a significant nonspecific protective effect of recombinant HBV vaccine against MS which means the vaccine reduced the risk of disease. In 2022, a case-report study investigated the condition of a 29-year-old woman with severe MS symptoms just one day after receiving the vaccine and it concluded to highlight the importance of considering MS as one of the side effects of the hepatitis B vaccine especially in patients with neurological symptoms after receiving the vaccine. Results of other studies, except the historical article, rejected any association between hepatitis B vaccine and MS risk. The historical article showed that hepatitis B vaccine increases the risk of MS.

Conclusion: In general, the majority of the results indicate the absence of a relationship between hepatitis B vaccine and MS, but the contradictions in some recent studies, recommend the need to conduct more studies in the future to determine the definitive result.

G-1063

Assessment of minimum inhibitory and bactericidal concentration of yarrow plant extract on the number of Gram-negative bacteria in vitro and determining its phenolic coefficient

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Introduction: Yarrow is one of the medicinal plants that is used to treat worms in the digestive system, headache, strengthen brain function, fever, nasal congestion, stomach pain, chest pain, urinary retention, menstrual blood retention and stopping bleeding. The aim of the present study was to synthesize hydro alcoholic extract of the Yarrow plant and evaluation of its antibacterial properties on Escherichia coli, Klebsiella pneumoniae, Enterobacter aerogenes and Shigella dysentery bacteria in vitro

Method & material: In this experimental study, Yarrow plant extract was extracted with the hydro alcoholic method. the Antibacterial effect of yarrow extract was performed by disc diffusion method and micro broth dilution on standard species of gram-negative intestinal bacteria. The minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) on gram-negative intestinal bacteria were obtained according to the guidelines of the Clinical and Laboratory Standards Institute (CLSI).

Result: The MIC of Yarrow plant extract for Shigella dysentery, Escherichia coli, Klebsiella pneumoniae and Enterobacter aerogenes bacteria was obtained in 1/8, 1/4, 1/16 and 1/16 dilutions, respectively. Also, the MBC of extract for Shigella dysentery, Escherichia coli, Klebsiella pneumoniae, and Enterobacter aerogenes bacteria was obtained in 1/4, 1/2, 1/4 and 1/4 dilutions, respectively. The diameter of the inhibition zone for Shigella dysentery, Escherichia coli, Klebsiella pneumoniae and Enterobacter aerogenes bacteria was obtained at 18, 21, 19 and 23 mm, respectively. By comparing the antibacterial effect of yarrow extracts with phenol, it was observed that in contact time 5 min, yarrow extract on Shigella dysentery, Escherichia coli, Klebsiella pneumoniae, and Enterobacter aerogenes was obtained 1/2, 1/4, 1/2 and 1/4 dilutions, respectively has a bactericidal effect. While phenol in concentration 2000mg/l with contact time 5 min had no antibacterial effect. After 10 min, it was observed that Yarrow extract has a bactericidal

Conclusion: The results of the current research show that the hydro alcoholic extract of the yarrow plant is very effective in the removal of gram-negative intestinal bacteria.

G-1064

COVID-19 diagnosis of hospitalized patients through blood tests with the help of Random Forest model

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Introduction: The diagnosis of COVID-19 is normally performed using RT-PCR, which does not seem to be an optimal technique due to the high number of false positive results. Also, CT scans and X-ray imaging cause patient problems one of which is high costs. The ability to obtain accurate results for diagnosis of COVID-19 may be achieved through the use of blood tests which provide a cheap and accessible basis. On the other hand, to speed up the decision-making process on a patient's fate, artificial intelligence can be used today. The random forest model is a supervised machine learning algorithm used to generate decision trees for various samples which is proposed to help diagnose COVID-19 through hematological data.

Method & material: 157 articles were reviewed in Scopus, PubMed and Emerald databases with the keywords Hematologic test, Machine Learning, COVID-19, etc. among which, the studies that dealt with predicting mortality or classifying the severity of corona patients with the help of machine learning models or differentiating COVID-19 from other diseases were excluded. Furthermore, the articles that examined the percentage of hematological parameters (including CBC, MCV, MCHC, etc.) to biochemical, immunological parameters, etc. were more than 60% were included, and after removing the duplicate articles, 9 articles remained, which were investigated with the aim of the effect of the random forest model in the diagnosis of coronavirus infection with the help of blood tests.

Result: Platelet number (n=2), monocyte, leukocytes and MPV, MCHC, Hct factors (all n=1) and overall count of all blood cells (CBC) (n=4) are the most relevant hematologic data to enter into a forest model. The efficiency model was measured with AUC(n=4), sensitivity(n=2), specificity(n=2), and accuracy(n=5). AUC0.9 was found in three of the articles and two articles had accuracy and specificity upper than 90%, but the specificity for two other articles was less than 80%.

Conclusion: Statistical data give promising results of accuracy, sensitivity and high specificity of artificial intelligence models, especially random forest, in diagnosing COVID-19 using blood tests. Due to the merits of artificial intelligence models such as the high speed of training and implementation and the ability to analyze and also the advantages of blood tests such as being cheap and available, Random Forest model can help in the faster diagnosis of coronavirus infection by blood test measures, and it may be that in the event of a pandemic in the future, it can make humanity more prepared than before.

G-1065

Examining the quality of education after the covid-19 pandemic from the perspective of the students of Zahedan University of Medical Sciences in 2020

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Introduction: The quality of education in the university is considered one of the most discussed and complex issues in higher education. Quality is one of the most important issues in the higher education system. Today, universities are successful in achieving their mission, vision and goals that pay attention to the expectations of students and continuously strive for the growth and development of their abilities and talents. Due to the Covid-19 pandemic, which has had many negative effects on various aspects of higher education. Therefore, it seems necessary to conduct a study to examine students' views on the quality of education. The present study was conducted with the aim of determining the quality of education after the covid-19 pandemic from the perspective of Zahedan University of Medical Sciences students.

Method & material: This descriptive and analytical cross-sectional study was conducted in 2020on 500 students of Zahedan University of Medical Sciences. After the plan was approved by the ethics committee of the university, questioning was done in compliance with ethical and health standards. The tool used in this study was the standard SERVQUAL questionnaire, which includes two parts of demographic characteristics and five dimensions of the quality of educational services. The data was analyzed using spss-23 software and using descriptive and inferential statistics.

Result: In this study, 351 women (70/2) and 149 men (29/8) were included in the study. Among the target population, 0.2% had associate degree, 58.6% bachelor degree, 3.5% master degree and 37.7% professional doctorate. The average score of perceptions of assurance dimension was 8.19 and the average of expectations was 8.59, the average of perceptions of responsiveness was 16.77 and the average of expectations was 17.13, as well as the average of perceptions of empathy was 16.77 and the average of expectations was 17.13. No significant relationship was found between understanding and expectation regarding the dimension of assurance ($P \geq 0.05$).

Conclusion: According to the results of the research, the students' expectations about the quality of education were beyond their perceptions, and the quality of the education provided from the students' point of view was considered inappropriate based on the Seroqual model. In order to improve the quality of education, all dimensions, especially the aspect of responding to students, should be prioritized in planning.

G-1066

Artificial Intelligence Applications in Molecular Imaging and Radiation Therapy: A Systematic Review

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Introduction: Molecular imaging as an imaging modality combines traditional imaging techniques with molecular probes to visualize and study biological processes at the molecular level. Medical images are used for cancer detection and treatment planning in radiation Therapy. Artificial intelligence (AI) has made significant advancements in various fields, including medical imaging and radiation therapy. This study aimed to give a general insight into applications of different artificial intelligence algorithms including machine learning and deep learning models for molecular imaging and radiation therapy.

Method & material: PubMed, ScienceDirect, Web of Science and Google Scholar databases were explored using different combinations of the keywords “Molecular Imaging”, “Radiation Therapy”, “Artificial Intelligence”, “Deep Learning”, “Machine Learning”. Finally, 22 most related and recent papers were included in the study.

Result: The most frequent applications of AI models in molecular imaging include image analysis and segmentation, image reconstruction, quantitative analysis, image enhancement and denoising, computer-aided diagnosis (CAD), and personalized medicine. Valuable information can be extracted from molecular imaging data using AI algorithms that can help identify and segment specific structures or regions of interest in images. This automated analysis enhances accuracy, efficiency, and consistency in image interpretation. AI algorithms can optimize complex data acquisition and reconstruction processes for molecular imaging to improve image quality, reduce artifacts, and enhance signal-to-noise ratios. This will improve diagnostic capabilities such as quantifying the uptake and distribution of radiotracers or contrast agents within tissues, facilitating the assessment of disease progression or treatment response. AI models have been widely used in radiation therapy for automatic treatment planning, dose prediction and optimization, organ segmentation and contouring, treatment response prediction, quality assurance and monitoring, and adaptive radiotherapy.

Conclusion: The application of AI models has shown tremendous potential in both molecular imaging and radiation therapy, revolutionizing various aspects of these fields. The integration of AI techniques in molecular imaging and radiation therapy has the potential to enhance diagnostic accuracy, treatment planning, and treatment outcomes. AI algorithms can act as a support tool for radiologists and physicians, providing computer-aided diagnosis and treatment planning. However, it is important to address challenges related to data quality, model interpretability, and regulatory considerations to fully realize the benefits of AI in clinical practice.

G-1067

Explaining the experiences of rural doctors regarding methods of increasing vaccine acceptance in the covered population, the least privileged province of the country (a qualitative study)

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Introduction: The Covid-19 disease has become a global problem, and prevention through vaccination reduces the damage and human casualties when the incident occurs. Understanding the factors affecting the acceptance of vaccination and identifying obstacles and facilitating decisions in the field of vaccination are important aspects of designing effective strategies to improve the vaccination coverage among the people of this province. As a serving member of the comprehensive service centers, the family doctor is in direct contact with the families. Doctors of comprehensive health service centers are one of the groups whose experiences about vaccines and increasing their acceptance in the society are influential. Therefore, the present study was conducted with the aim of explaining the experiences of rural doctors regarding ways to increase vaccine acceptance in the population covered, the least privileged province of the country.

Method & material: This qualitative research was conducted on 27 family doctors of comprehensive health service centers in Zahedan city in 2020. After the project was approved by the ethics committee of the university, the researchers went to the doctor's place of work at the comprehensive urban health service center and they were interviewed using a semi-structured interview guide. At the end of the day, all the interviews were recorded and implemented daily on paper. Finally, coding was done using conventional content analysis method.

Result: 27 family doctors participated in this research, in the analysis of the interviews conducted with family doctors in the open coding stage, 103 basic concepts were found in 14 subcategories, finally 5 main categories (increasing sufficient educational facilities, cultural problems, increasing trust in The health, education and information system of one cloth and and Ahad) were extracted.

Conclusion: Based on the results of the present study, the willingness to accept the Covid-19 vaccine in the studied community was moderate. Paying attention to religious beliefs and aspects of fatalism along with older age groups and people with higher economic and social status can be specifically considered in the future planning of health policymakers in the field of the Covid vaccine. In order to more quickly reach the goal of group immunity with vaccination in the society, it is possible to plan the strategy of prioritizing the receipt of the vaccine based on the variables affecting the willingness to accept the vaccine.

G-1068

Explaining the experiences of pregnant mothers on the ways to protect the family and how to take care during pregnancy in Zahedan city

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Introduction: The law on the youth of the population and family support is a comprehensive law to support the family and encourage childbearing, since pregnant mothers are one of the key elements for the youth of the population, therefore their support and prenatal care can have a positive effect on the birth of children. Have a healthy baby and dynamic population growth. Based on this, it is very important to use mothers' opinions for this purpose. Therefore, this study was conducted with the aim of the present study.

Method & material: This research is a qualitative study of contractual content analysis in 2020. In-depth individual semi-structured interviews have been used to collect data. The interviews were conducted based on the interview guide. The participants were pregnant women with a gestational age between 24-36 weeks and referred to the health centers of Zahedan city. After conducting 25 interviews, the data reached saturation. To evaluate the correctness and reliability in the present study, 4 criteria provided by Lincoln and Goba including reliability, validity and acceptability, verifiability and transferability were used. To analyze the qualitative data in this study, the conventional content method was used.

Result: In this study, pregnant women, from different social groups and mostly housewives with cycle to bachelor's education; The age range (16-40) years and the first to fifth pregnancy stage participated. From the data analysis, four categories were obtained: better access to services , providing services according to the needs of society , financial and nutritional support and increasing insurance coverage .

Conclusion: The results of the research indicate that health care facilities and services in Sistan and Baluchistan province are not distributed in a balanced way and in terms of the development of health services, there is a big difference between the cities. Therefore, it is suggested to take necessary measures to reduce the gap in health services in the cities of the province through development-oriented planning. Also, in the allocation of health and treatment resources, this province should be prioritized because the status of benefiting from health and treatment indicators is small compared to its population.

G-1069

Comparison of the effect of oral magnesium citrate on spirometry in patients with asthma: a double-blind clinical trial

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Introduction: Asthma is a chronic and inflammatory disease and one of the common health problems seen all over the world. On the other hand, oral citrate drug has been used in the treatment of many respiratory problems, but no studies have been conducted on the effect of this drug on asthma patients. Therefore, this study was conducted with the aim of comparing the effect of oral magnesium citrate on the spirometry of patients with asthma: a double-blind clinical trial.

Method & material: This study is a clinical trial that was conducted in 2020on 60 patients with allergic asthma. After entering the study, spirometry was performed on all patients, and then the patients were randomly divided into two groups receiving magnesium citrate (two capsules of 150 mg of magnesium citrate per day) and the placebo group. After receiving the drugs for two months, again In all patients, spirometry was performed and information was collected using an information form and finally by SPSS software version 22, the results in the treatment group were compared using descriptive tests and paired t-test for parametric data and Wilcoxon test for data non-parametric was used, significance level p0.05 was considered

Result: In this study, 60 patients with asthma were investigated, 46.7% of them were men and 53.3% were women. The average age of the patients was 37.6 ± 14.9 years. The values of FEV1 and FVC in the group receiving magnesium citrate were significantly higher after treatment than before treatment, but the value of FVC/FEV1 before and after treatment was not significantly different in this group. But these findings were not significantly different in placebo group before and after treatment.

Conclusion: In general, the results of this study showed that treatment with magnesium citrate improves spirometric findings in patients with asthma compared to placebo.

G-1070

Comparison of spirometry indices in chronic obstructive pulmonary disease patients using inhaled opioids in Zahedan

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Introduction: One of the most common lung disorders in adults is chronic obstructive pulmonary disease (COPD), which includes chronic bronchitis and emphysema. Obstruction occurs due to inflammation of the airway and increased mucus in the airways, which are called bronchi and bronchioles, and causes a decrease in air flow. This inflammation and increased mucus causes a decrease in oxygen supply to body tissues. The most important dangerous factor for these patients is smoking. Therefore, the present study was conducted with the aim of comparing spirometry indices in chronic obstructive pulmonary disease patients consuming inhaled opioids in Zahedan.

Method & material: The present study is a descriptive-analytical cross-sectional study that compares spirometric indices in chronic obstructive pulmonary disease (COPD) patients using inhaled and non-inhaled opium in patients who refer to lung clinics in Zahedan. The number of samples examined in this study includes 150 patients who were divided into two groups and examined according to the research objectives. At the end, the data obtained in spss software version 21 was analyzed through statistical tests and a significance level of 05.0 was considered.

Result: In this study, 150 patients with COPD were examined in two groups of 75 people, whose age range was 18 to 70 years, and 133 of them were men and 17 were women. Also, 141 of them were smokers and 9 were non-smokers. On the other hand, the results obtained in this study showed that the normal spirometry profile in the non-inhaled opium user group had a significant difference (P0.05) and the obstructive and restrictive spirometric profile significantly differed in the inhaled opium user group. was more

Conclusion: According to the results obtained in this study and comparing it with similar studies, it can be concluded that chronic use of opium, especially by inhalation, has a significant role in reducing respiratory capacity and spirometry indicators in chronic obstructive pulmonary disease patients.

G-1071

Explaining the reasons for choosing and familiarizing medical tourists in Iran: a qualitative study

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Introduction: Medical tourism is a topic that is starting to be investigated in different parts of the world. Increasing expectations of health tourists for the quality of health services definitely has an effect on the increasing quality of nursing care services for various foreign clients. This study was conducted in the form of a qualitative study with the aim of explaining the reasons for choosing Iran and how to familiarize medical tourists in Iran

Method & material: Data were collected through semi-structured interviews in 2022-2023 by the first author with the participants (nurses, patients, patient's companion and doctor) . The interviews were conducted at the place where the participants wanted and with prior coordination or at the workplace of the participants. The average time of interviews was 20 to 60 minutes. Immediately after conducting each interview, the interviews were written down and the interviews were reviewed several times to gain an understanding of the entire interview. Handwritten interviews were analyzed based on conventional content analysis. The steps of interview analysis include conducting each interview immediately after each interview, reading the full text of the interview for its overall understanding, determining semantic units and primary codes, classifying similar primary codes into more comprehensive classes, and determining the hidden meaning in the data.

Result: This study showed that the reasons for choosing Iran by medical tourists are due to the conditions of the country of origin with the subcategories of high price of services , low quality of services and facilities , high technological weakness and the conditions of the destination country with the subcategories of geographical location . and cultural , expert medical staff , price of treatment and tourism , leisure tourism , up-to-date equipment and facilities and popular medical treatments in Iran . Through two ways of advertising and informing with the subclasses: portable information and active presence in conferences and exhibitions in the country of origin and also through influencing medical tourists with the subclasses of representative patients . Doctors' recommendations are real persons (brokers).

Conclusion: The country of Iran It can make its role in the field of medical tourism more prominent by knowing as much as possible the reasons for the arrival of medical tourists to Iran, on its strengths and introducing them as its unique capabilities in providing services and identifying how to familiarize patients. It is also possible to improve the medical tourism industry by providing applications, marketing and modifying some infrastructures according to the identified cases

G-1072

Evaluation of job stress and depression in nurses in wards related to Covid-19 patient and its comparison with other wards of the hospital, Eastern of Iran in 2021.

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Introduction: Stress is the most challenging of human life and cannot be avoided it. Nurses have very important and vital role and it is important to maintaining and improving their physical and mental health of them. The present study was designed with the aim of "Evaluation of job stress and depression in nurses in wards related to Covid-19 patient and its comparison with other wards of the hospital, Mashhad in 2021".

Method & material: In this cross-sectional study 83 nurses from Covid 19 part and 62 nurses from the other parts of Imam Reza Hospital in Mashhad were selected with convenience sampling in order to add data, Stress questioner of nurses ENSS and depression questioner DASS were used. Data analysis was done using SPSS version 20 and two-sample t-test.

Result: The mean age of the subjects in Covid and the other parts was 35.61±6.76 and 33.84±8, respectively. The mean score of depression in Covid part was 5.37±6.35 and it was higher than the other parts 4.55±6.01. But the difference was not significant statistically (P=0.430). The mean score of stress in Covid part was 1.98±0.65 and it was higher than the other parts 1.81±0.61. But the difference was not significant statistically (P=0.113).

Conclusion: Two psychological factors affecting the quality of work life and health are Stress and depression. It is necessary to addressing psychological issues and considering approaches to improve the mental health of employees of healthcare system.

G-1073

Evaluation the effect of insole with longitudinal arch support on foot kinematics in children with flexible flat foot who have undergone subtalar arthroeresis

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Introduction: Arthroeresis of the subtalar joint is an effective method for treating flat foot. The use of insoles are used as a common intervention in people with flexible flat feet. The main goal of this research is to investigate the immediate effect of insoles with medial longitudinal arch after subtalar arthrodesis surgery on the kinematics of the foot joints during walking of children with flat feet who underwent subtalar arthrodesis surgery.

Method & material: The sample size was 10 children with flat feet after subtalar joint arthrodesis surgery, which was performed at the Musculoskeletal Disorders Research Center, Faculty of Rehabilitation Sciences, Isfahan University of Medical Sciences. The coordinates of the markers were recorded by cameras and processed by QTM manager software. With the help of Visual 3D software, the model of the desired segments was made.

Result: The use of medical insoles along with internal longitudinal arch after subtalar joint arthrodesis surgery significantly reduced the range of motion of the hindfoot at the moment of heel contact with the ground (Pvalue0.05).

Conclusion: One of the main goals of the subtalar joint arthrodesis surgery is to reduce the amount of emergence of the posterior part of the foot, and medical insoles helped this goal by significantly reducing the amount of emergence of the posterior part of the foot at the moment the heel hits the ground.

G-1074

Effects of orthotic treatment in correcting cranial deformities in infants: A review of literature

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Introduction: Cranial deformities can be seen because of multiple reasons. Plagiocephaly, brachiocephaly and scaphocephaly are three kind of cranial deformities that can be seen in infants. Diagnose and treatment on the right time is important. There are Treatments methods like surgery, orthoses, physiotherapy, repositioning and etc. for correcting cranial deformity in infants. The purpose of this study is to determine the effects of orthoses on correcting cranial deformities in infants.

Method & material: We conducted a search via PubMed, web of science and Scopus to identify studies which were related to our article. The publication dates were from 1957 until late 2022. Titles and abstracts collected base on our selection criteria. Down and Black tool was used to evaluate the quality of the articles.

Result: Based on keywords we used, our searches led to find out 218 papers that 52 of which were related base on title and abstract. Quality of the articles were variable between 16 to 23. Most of the articles reported orthoses are effective in correction of cranial deformities in infants. Actually there are very little literatures that discourage the use of orthoses in correcting cranial deformities in infants.

Conclusion: After collecting and reviewing the articles, It seems that orthoses are more effective in correcting cranial deformities than conservative treatments. However there are lack of literature evidences and more researches are required to identify the efficacy of orthotic treatment in the correction of cranial deformities in infants

G-1075

Comparison of the effectiveness of foam and rigid Minerva braces in cervical spine movements

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Introduction: During nonoperative treatment or after surgery various braces are available to immobilize unstable cervical spine to facilitate fusion of the injury site. The most effective and successful braces for immobilizing unstable cervical spine injuries are two braces, Minerva and Halo. The performance of cervical braces is measured by the degree of motion restriction and patient compliance. In this study, the aim is to obtain detailed information on the function of soft and rigid Minerva braces compared with each other by relying on three-dimensional motion analysis as a standard method.

Method & material: Twenty nine healthy male subjects without a history of spinal pain, malformation or surgery were recruited for the study. To record movements of the cervical ,thoracic and cervicothoracic spine in flexion, extension, lateral bending and rotation with and without Minerva braces 3D Motion capture system was used.

Result: The immobilization of the cervicothoracic and thoracic spine obtained with Soft Minerva differed from 80.97, 89.38% and 87.70, 68.331% and 76.34, 41.97%, respectively. The cervical, cervicothoracic and thoracic spine motion restriction achieved with rigid Minerva varied from 90. 35, 81.51% and 86.88, 67.9% and 76.73, 56. 2%, respectively.

Conclusion: Both braces significantly reduce CROM (cervical range of motion). The rigid Minerva was more successful in extension and lateral bending. The soft Minerva was more successful in flexion and rotation and most stabilization occurred in the cervical region.

G-1076

Investigating the impact of covid–19 disease on tobacco and alcohol using: a review study

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Introduction: The outbreak of the Covid-19 disease has led to protective and preventive measures including social distancing and quarantine around the world. This stressful period may lead to psychological problems, including increased substance and tobacco use. The purpose of this review study is to investigate the impact of covid-19 disease on tobacco and alcohol using.

Method & material: In this review study of PubMed, Scopus, Google scholar, SID and Magiran databases and searching for the keywords alcohol, tobacco, cigarettes, corona virus, covid-19 and their English equivalents to find related articles. The articles reviewed and studied in this research are between 2019 and 2023.

Result: A total of 38 articles were collected in this study. By removing irrelevant articles, finally 26 articles were examined. The findings indicate that during the quarantine, compared to the pre-quarantine period, as a method of self-medication against the restrictive measures caused by the Covid-19 pandemic, people consumed slightly more alcohol and slightly smoked more cigarettes.

Conclusion: According to the research findings and the impact of the covid-19 pandemic on the pattern of smoking and alcohol consumption, it is suggested to adopt a multidisciplinary approach including psychologists, psychiatrists and mental health specialists in order to reduce the amount of such high-risk behaviors.

G-1077

Ergonomics and musculoskeletal disorders among surgical technologists: a review study

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Introduction: One of the most important health problems of surgical technologists is musculoskeletal disorders and the issue ergonomics. The purpose of this review study is to investigate the ergonomics and musculoskeletal disorders among surgical technologists.

Method & material: This review was conducted in 2022. PubMed, Google scholar and Scopus databases were searched using the keywords Ergonomics, musculoskeletal disorders, surgical technologist. Articles that were published between 1990 and 2023 were extracted and after careful study and extracting the required information, this information was reported in the present study.

Result: A total of 20 articles were collected in this study. By removing irrelevant articles, finally 15 articles were examined. Based on the studies in our search scope, skeletal-muscular disorders are one of the most important problems resulting from unhealthy ergonomic conditions and the lack of application of ergonomic principles in work environments, including the complex environment of the operating room. Among these disorders, back pain is reported as the most common complaint (84%), followed by ankle or foot pain (74%) and shoulder pain (74%). In most cases, these disorders are the result of inappropriate working conditions and physical conditions, as well as lack of awareness of ergonomic principles. In addition to affecting patient care outcomes, these disorders can cause disruption in surgical technologists' performance, absenteeism from work, burnout, early retirement, and desertion.

Conclusion: Considering that surgical technologists are exposed to high-risk levels of occupational injuries and skeletal-muscular disorders caused by static pressures and dynamic pressures, by using appropriate training programs and providing ergonomic tools, good ergonomic conditions can be created in operating rooms and increase health, productivity, occupational safety, job satisfaction, and improved performance of surgical technologists, these factors positively contribute to achieving patient care results and preventing the spread of disorders in the future.

G-1078

Mobile health in medical imaging

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Introduction: In recent years, mobile health (m-Health), as a subfield of e-health, is considered one of the most transformative drivers for healthcare delivery innovations. The purpose of this review study is to investigate the mobile health in medical imaging.

Method & material: This review was conducted in 2022. PubMed, Google scholar and Scopus databases were searched using the keywords mobile health, mobile health in medical imaging, medical imaging. Articles that were published between 1990 and 2023 were extracted and after careful study and extracting the required information, this information was reported in the present study.

Result: A total of 26 articles were collected in this study. By removing irrelevant articles, finally 20 articles were examined. Regardless of the high adoption of mobile devices by medical imaging students, the knowledge about the use of medical imaging applications and mobile applications, especially WhatsApp, among medical imaging students is very limited. So that less than 50% of students have used this type of applications for education. Mobile applications create wide opportunities as an auxiliary tool in m-Health in medical imaging. But use of them has challenges such as lack of sufficient capacity of phones to carry radiology images and transfer of images in a safe environment.

Conclusion: Medical imaging with the help of mobile phone applications plays an important role as a diagnostic tool due to its convenient connectivity and cheapness. It is better to include written training in educational programs for students to use these applications more.

G-1079

Prevalence of unmet mental health needs among adult individuals with disability and its socioeconomic inequality in west of Iran

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Introduction: People with disabilities are susceptible to mental disorders, so it is very important to check and monitor their access to mental health services. There has been no study in this regard in Iran. This study aimed to measure the prevalence and socioeconomic inequality of subjective unmet need for mental health services (SUNMH) among individuals with disability and various reasons behind it in west of Iran.

Method & material: This descriptive-analytical and cross-sectional study was conducted on 613 people with disabilities over 18 years of age in Sanandaj city in 2022. Simple random sampling was used and a questionnaire was applied to collect the data. The multivariate logistic regression was used to determine significant predictors of SUNMH. Concentration index (C) and concentration curve (CC) were calculated to measure inequality in the prevalence of SUNMH. Data were analyzed using STATA software version 16.0 (Stata Corp, College Station, TX, USA.

Result: About 47% of people had experienced SUNMH. Lack of financial ability with 45%, insufficient payment of basic health insurance for mental health services with 27% and non-coverage of mental health services by basic health insurance with 25% were the three main reasons for SUNMH. According to the logistic regression model, unemployment (OR: 2.70, 95% CI: 1.31-5.53), not having supplementary insurance (OR: 2.03, 95% CI: 1.11-4.74), having another member with a disability in the household (OR: 3.33, 95% CI: 1.34-8.29), and poor economic status increased the odds of experiencing unmet need for mental health services by about 3, 2, 3, and 21 times, respectively (OR: 21.11, 95% CI: 13.72-48.11). The concentration index was -0.496; indicating a greater concentration of SUNMH in people with low socioeconomic status.

Conclusion: Access to health services is not suitable among people with disabilities and a significant percentage of them suffer from SUNMH. The main reason for SUNMH is financial issues, which can be addressed with appropriate and fair financing policies and therefore improve access to mental health services.

G-1081

The role of artificial intelligence in the diagnosis and treatment of diseases: a review study

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Introduction: With the increase in the prevalence of diseases, efforts have been directed towards the use of fast and high-precision diagnostic and treatment methods. One of these methods is artificial intelligence, which is used in many systems today, including the health and treatment system. The purpose of this review study is to investigate the role of artificial intelligence in the diagnosis and treatment of diseases.

Method & material: This review was conducted in 2022. PubMed, Google scholar and Scopus databases were searched using the keywords Artificial intelligence, diagnosis, treatment, disease. Articles that were published between 2015 and 2023 were extracted and after careful study and extracting the required information, this information was reported in the present study.

Result: A total of 24 articles were collected in this study. By removing irrelevant articles, finally 17 articles were examined. Based on the studies in our search scope, the use of artificial intelligence techniques, including artificial neural networks, machine learning and deep learning, is increasing due to their effectiveness and usefulness in diagnosing diseases and investigating medical and health issues. Lack of involvement in human issues such as fatigue and the ability to work 24 hours increases their speed and accuracy to diagnose diseases. Diagnosis of acute appendicitis, gastrointestinal diseases, liver cirrhosis, chronic kidney failure, pulmonary tuberculosis, retinal diseases, cancer, diagnosis of Alzheimer's disease from MRI images and covid-19 disease using artificial intelligence are among the applications of this technology in medical sciences. With the rapid and correct diagnosis of diseases by artificial intelligence, the complications of late disease diagnosis, unnecessary surgeries, the duration of the patient's stay in the hospital

Conclusion: The use of methods based on artificial intelligence can have significant accuracy in the differential diagnosis of diseases that are very similar, such as iron deficiency anemia and thalassemia, and can be used to help patients in remote areas with limited access to resources and lack of specialists. Also, artificial intelligence plays an important role in this field due to its continuous development and the complex nature of health and medical problems, as well as its suitability to solve such problems.

G-1082

The Role of Telemedicine in the Care of patients with HIV

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Introduction: HIV infection is the major cause of death worldwide. Since the beginning of the epidemic, about 35 million people have died from diseases related to this syndrome. With the advancement of technology, telemedicine is one of the cost-effective ways to care for these patients. The aim of this study is to investigate the role of telemedicine in the care of patients with HIV.

Method & material: In this review study, the keywords Telemedicine , Telehealth , Mobile health , HIV , and Care were searched through Pub-Med, Google Scholar, Scopus, SID databases, and the most relevant articles published from 2015 to 2023 were investigated. The search results included 135 articles, the results of which were derived from 82 related studies that had full text.

Result: A review of studies showed that telemedicine is a unique opportunity for HIV care that has increased over the past decade. The advantages of this method include: Reducing the cost of patients, improving accuracy in data collection, reducing concerns related to disease stigma, improving disease management, etc. Identified barriers include privacy concerns, patients' inability to interpret results, reimbursement concerns, etc. The results of studies show that telemedicine interventions can be effective in maintaining care and adherence to treatment in people with HIV, but more efforts are needed to address its barriers, including the digital divide.

Conclusion: Telemedicine is an effective way to care for patients with HIV because it gives flexibility to patients, but the obstacles in front of it must also be evaluated and resolved.

G-1083

Psychological Disorders of infertile women with a history of Assisted Reproductive Technology (ART)

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Introduction: Worldwide, infertility affects 10%-15% of couples which causes serious psychological problems and stressful experience of infertile couples. Undergoing assisted reproductive technology (ART) could generate further stress in these patients. The aim of this study is to investigate the psychological disorders of infertile women with a history of ART.

Method & material: In this review study, the keywords psychological disorder , infertility , Assisted Reproductive Technology were searched through Pub-Med, Google scholar, SID databases and the most relevant articles published from 2015 to 2023 were investigated. The search results included 35 articles, the results of which were derived from 26 related studies that had full text.

Result: Review of studies showed that although infertile couples are psychologically healthy, dealing within infertility and ART is usually associated with psychological distress, anxiety, depression, psychological vulnerability, frustration, aggression, rigidity and neuropsychic stress. Assisted reproductive technologies are recognized as a negative emotional burden in infertile women, which can have a destructive effect on their chances of achieving pregnancy. Because psychological disorders including stress, are the main reason for stopping treatment by these patients.

Conclusion: Infertility has an impact on the psychophysical health of women and its treatment through an ART is an unpleasant experience. So, these results suggest the importance of implementing support interventions for women with a history of ART.A

G-1084

Investigating the relationship between health literacy and lifestyle in the elderly of Qazvin city

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Introduction: Health literacy is one of the essential factors for self-care of chronic diseases and maintaining health. Lifestyle is also one of the most important factors affecting health, which can be managed to deal with the risk factors of mortality. Since health literacy and lifestyle are health factors affecting the health of the elderly, the present study was conducted with the aim of determining the relationship between health literacy and lifestyle in the elderly of Qazvin city in 2016.

Method & material: This descriptive-cross-sectional study was conducted on 250 elderly people of 60 years and older living in Qazvin city, who were selected by cluster sampling method from the gathering places of elderly people. The data of this study were collected through questionnaires of demographic information, assessment of adult health literacy and healthy lifestyle in the elderly. The questionnaires were completed by the researcher through face-to-face interviews. Data analysis was done using SPSS version 24 software. A significance level of less than 0.05 was considered. Pearson correlation tests and multivariate linear regression were used for data analysis.

Result: The average age of the elderly participants in this study was 69.4 ± 6.8 years. The majority of the elderly had insufficient health literacy (79 people, 31.6%) or not enough (69 people, 27.6%). More than half of the elderly had an optimal lifestyle (160 people, 64%). The results of multivariate regression showed occupation, education, lifestyle and economic status as predictors of health literacy and age, education, history of hospitalization and health literacy as predictors of lifestyle (p0.05).). The results of the present study also showed that health literacy and its areas had a direct and significant relationship with lifestyle (P0.001).

Conclusion: Considering that high health literacy can have a potential impact on improving the lifestyle of the elderly, it is necessary to take a step by adopting appropriate health, educational and cultural policies to promote health literacy and, as a result, the lifestyle of this group.

G-1085

Comparison of burnout of nurses working in corona wards with nurses in other treatment wards of Imam Khomeini Hospital in Songor and Keliai in 2021

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Introduction: Nurses' mental health is strong in the quality of sales services and burnout can be one of the most problems in this area. Therefore, this study was conducted to compare the burnout of nurses working in corona wards with nurses in other treatment wards.

Method & material: This descriptive-analytical study was performed in 1400 in Imam Khomeini Hospital in Songor and Keliai. A total of 66 nurses working in maternity wards, gynecology, pediatrics, emergency department, ICU, CCU, Corona 1 and Corona 2 were selected by simple random sampling and entered into the study. Data collection tools were demographic information questionnaire and Massach burnout questionnaire. In order to analyze the data, one-way analysis of variance and SPSS 20 software were performed using statistical methods.

Result: Analysis of variance showed that there was a statistically significant difference between the mean burnout scores of nurses working in the corona ward and nurses in other treatment wards (p0.001) and scores of emotional fatigue components, feeling of self-sufficiency and involvement in Nurses), in nurses working in coronary wards less but more sense of adequacy

Conclusion: The results of this study showed that burnout in nurses working in coronary wards has increased compared to nurses in other treatment wards. Therefore, due to the country's conflict with this disease, it is necessary to pay special attention to nurses working in this department.

G-1086

Comparison of Experts and Older Adults' with multiple chronic condition (MCC) Viewpoints on self-management

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Introduction: Considering the increase in the number of elderly and their suffering from Multiple chronic conditions (MCCs), it is difficult to understand the complex experiences of the elderly in the field of adaptation to the disease. Self-management is known as an important part of the treatment of the elderly suffering from chronic diseases. The purpose of This study compares the viewpoints of experts, caregivers and the elderly regarding self-management based on the ecological approach.

Method & material: This qualitative study is part of a larger research; A sequential exploratory combined method was conducted to design a self-management model in the elderly with MCC from June 2021 to April 2022 in hospitals and universities. Using the qualitative approach and directed content analysis, the views of 7 elderly people living in Tehran and 13 experts in the field of geriatrics about self-management were investigated. Finally, the opinions of the two groups regarding the dimensions of self-management were compared. Data were collected through semi-structured interviews. Sampling was done in a purposeful way at the beginning and theoretically until data saturation. Data analysis was done simultaneously with data collection through qualitative content analysis directed by Elo and Kingas.

Result: After determining the characteristics of self-management in the ecological model, the matrix was developed and the codes were placed in its sub-branches. The final analysis showed that a total of 511 meaning units and 185 codes were placed in 12 subcategories and 4 main categories. The analysis of qualitative findings showed that the concept of self-management from the perspective of the elderly includes 4 main categories of individual, interpersonal, extra-organizational factors, factors related to the health system and 12 sub-categories of biological, cognitive, co-morbidities, socio-economic factors, behaviors Health-oriented, mental health, interaction with the care and treatment team, family relations, medical center facilities, employee empowerment, health policy making and cultural factors were included. Differences in prioritizing the dimensions and subcategories of self-management were observed between the views of the elderly and experts. Specialists considered the subcategories of adherence to treatment, attention to patient-centeredness and insurance coverage to be the most important,

Conclusion: The findings of this study show the dimensions of self-management of the elderly with MCC, which can be used in the design of self-management programs for the elderly with MCC.

G-1087

Investigating the Impact of Broadleaf Plantain on Wound Healing and Inflammation: A Literature Review

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Introduction: Wound healing and inflammation are significant health concerns that require effective treatment strategies. Traditional medicine offers potential solutions through the use of natural remedies, such as broadleaf plantain (Plantago major). Broadleaf plantain has a long history of traditional use in addressing various conditions, including wound healing and inflammation. This literature review aims to explore the existing scientific evidence on the impact of broadleaf plantain on these processes.

Method & material: A comprehensive search strategy was employed to identify relevant articles published between 2010 and 2023. Systematic searches were conducted across the SID, Scopus, and PubMed databases using specific keywords, including broadleaf plantain, wound healing, and inflammation. Studies were selected based on predetermined inclusion and exclusion criteria, considering their relevance to the topic and availability of full-text articles. The selected studies were critically analyzed to extract relevant data and insights.

Result: The selected studies consistently reported positive effects of broadleaf plantain on wound healing and inflammation. Broadleaf plantain exhibited properties such as antimicrobial, antioxidant, and anti-inflammatory effects, contributing to its potential therapeutic benefits. Various in vitro and in vivo studies emphasized the ability of broadleaf plantain extracts or components to enhance wound closure, reduce inflammation, and facilitate tissue regeneration.

Conclusion: The findings from the selected studies suggest that broadleaf plantain holds promise as a natural remedy for enhancing wound healing and managing inflammation. These observed effects may be attributed to the presence of bioactive compounds in broadleaf plantain, such as aucubin and flavonoids, which possess diverse pharmacological properties. However, further research is necessary to elucidate the underlying mechanisms and identify the specific active constituents responsible for the observed effects.

G-1088

Investigating the prevalence of burns in Kermanshah province

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Introduction: Burn is one of the public health problems and one of the major causes of death in Iran, which causes many physical and psychological disabilities. The aim of this study was to investigate prevalence burns and its causes in Kermanshah province.

Method & material: This is a descriptive -analytical cross-sectional study. Data were obtained from the burn data record center of Kermanshah province. 490 patients were studied in this research. A designed checklist was used for data collection. Data analysis was performed using SPSS 22.

Result: The mean age of patients was 17.01 years. Most burns (28.6% of the patients) were caused by oil and gasoline. 65.5% of patients had 25% to 50% burning rate. Remedial measures taken for 44% (44.1%) of patients were debridement.

Conclusion: Since burn is more prevalent in childhood and adolescence, it is necessary to provide policy interventions and required trainings to this at-risk group to prevent burn incidence.

G-1089

Interaction between NF-KB1 polymorphism and Dietary antioxidant index and Dietary antioxidant quality score with Gensini score (GS) and Syntax score (SS) in patients undergoing coronary angiography

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Introduction: Gene–diet interactions may have an important role in coronary artery disease (CAD) severity. Therefore, in this study, we investigate the interaction of NF-κB1 polymorphism with Dietary antioxidant index (DAI) and Dietary antioxidant quality score (DAQS) in altering severity of CAD and its risk factors among patients undergoing coronary angiography.

Method & material: This study was conducted on 440 patients undergoing coronary angiography. DAI and DAQS were assessed based on dietary intake of the participants. Gensini score (GS) and Syntax score (SS) were calculated using the angiography results. The restriction fragment length polymorphism (PCR-RFLP) was used for the detection of the rs28362491 genotype. To investigate the interaction, we used the multivariate regression models.

Result: There is a Gen-diet interaction for DAQS and NF-KB1 polymorphism on high GS)OR 0.25 95%CI: ,0.78-0.08P: (0.01in the crude model. Patients with II genotype who were placed in the high adherence to DAQS had lower odds of high GS compared to DD homozygotes. This association was significantly reminded after adjustment for the confounder variables OR:0,.21 95%CI: 0.06-0.78, P:0.02)

Conclusion: There was no interaction between rs28362491 and coronary artery disease severity. This study's results will be examined as a framework for future research on NF-KB1 gene and diet interaction. Extensive prospective studies are required to confirm these results.

G-1090

Factors predicting the fear of contracting the Covid-19 virus in the elderly of Qazvin city in 1400

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Introduction: The Covid-19 crisis and its health-related consequences are one of the most important human social events in the 21st century. The unknown nature of this disease and the fear of contracting it have affected the daily life of the elderly. For this purpose, the present study was conducted with the aim of determining the factors predicting the fear of contracting the Covid-19 virus in the elderly of Qazvin city.

Method & material: This cross-sectional descriptive study was conducted on 500 elderly people over 60 years old in Qazvin city in 1400. In order to collect data from the target population, first, the areas of Qazvin city were selected by cluster sampling method, and then sampling was done as available among the elderly located in the elderly centers, parks and mosques of Qazvin city. The data collection tool included a demographic information questionnaire and a fear of covid-19 questionnaire. Data analysis was done using SPSS version 26 software and using descriptive statistics and multivariate regression.

Result: The average age of the elderly was 69.17 ± 6.75. The average fear of covid-19 was 21.05 ± 8.92. The results of multivariate regression analysis showed that the variables of gender (β=3.84 P=0.00), history of death due to covid19 (β=3.89 Sig=0.00), history of covid-19 in relatives (β=2.58 P=0.003), high blood pressure (β=1.85 P=0.045), asthma (β=2.88 P=0.010), widowhood (β=4.59 P=0.049), illiteracy (β=-3.18 P=0.004), good economic status (β=-2.03 P =0.015) and high economic status (β=-5.96 P=0.00) as predictors significantly predicted the fear of covid-19 in the elderly. P0.05 was considered.

Conclusion: The results of the present study showed that the frequency of fear of covid-19 in the elderly is relatively high. The variables of gender, education, economic status, having a family history of covid-19, death of relatives due to covid-19, marital status, having a history of physical diseases in the elderly were identified as predictors of the fear of contracting covid-19.

G-1091

Investigating the status of literacy and the performance of environmental protection and its relationship with environmental ethics among guidance schools students of Khoy city in 2022

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Introduction: In order to adopt an educational program in the promoting the environmental culture of students, the status of their environmental literacy should be determined, so the purpose of this research is to evaluate the environmental literacy and ethics of guidance school students in Khoy city in 2022 year.

Method & material: In this descriptive and survey research, the sample size of 350 people was calculated using Cochran's relationship and it was taken as a two-stage cluster from the community of 14,000 students. The data collection tool was a researcher-made questionnaire about environmental knowledge, attitude, behavior and ethics. The validity index of the questionnaire is higher than 0.79 and using Cronbach's alpha test, the reliability value was calculated as 0.76. Questionnaire data was analyzed with non-parametric statistical tests such as Manwitny in SPSS.

Result: The p value of the average of the four variables was zero and the correlation coefficients of knowledge and attitude were 0.51, knowledge and behavior were 0.2, knowledge and ethics were 0.36, attitude and behavior were 0.47, attitude and ethics were 0.51 and behavior and ethics were 0.47. With the increase in the educational level, the knowledge score increased, but it had no effect on the other three variables. Parents' education only had a positive effect on knowledge. The difference in knowledge, attitude and moral scores of boys and girls was not significant, but the behavior score of boys was 5% higher. There was no significant relationship between the scores of all four variables and the financial status of the family.

Conclusion: Guidance school students of Khoy have a relatively good level of knowledge, attitude and ethics, but the level of environmental behavior is weak. So, it can be concluded that the acquired knowledge is not effective to lead to the desired environmental protection behavior.

G-1092

Application of telemedicine in laboratory medicine

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Introduction: Nowadays, due to the expansion of the Internet, new technologies have been created in the field of improving the provision of medical services. After the globalization of the Internet, users started to think of using these systems to provide better services to people in the treatment sectors, in addition to using social networks. In fact, telemedicine is one of the types of electronic health that is supported by electronic and communication processes. Moreover, the medical sciences and engineering community work together to have a disease-free society.

Method & material: We investigated the literature search using the terms of Telemedicine and Medical Science in the databases (PubMed and Google Scholar) research for the last three years and found the results presented.

Result: In recent years, due to the spread of various diseases such as influenza and Covid-19, the world has thought of using a method that maximizes medical care while minimizing the spread of maladies. Recently, a discussion has been raised to design a tele-medical laboratory using recent cloud computing and Internet of Things (IoT) technologies, in which clinical examinations are performed on patients by trained people through medical devices. In general, we are talking about a situation where the best pathologists and doctors from different parts of the world cooperate through Federal Hospital Cloud. With this method, people can use healthcare without time and place restrictions and actually, without going to the hospital.

Conclusion: As more time passes, people's interest in doing their work while staying at home increases, so they are attracted to a direction that answers this need. In addition to the above, this technology can be used in deprived areas and reduce the cost of transportation. This system can notify the results of clinical tests and radiographs to the patient in the shortest possible time without having to go hospital.

G-1093

The effect of the family-centered empowerment model on the quality of life of children with cancer

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Introduction: Cancer in children causes many mental, psychological and physical consequences on the child and his family, which leads to a decrease in general health and quality of life in Child and his family, which requires special attention. In recent years, the concept of patient and family empowerment has found a special place in nursing and medical research. Therefore, this study was conducted with the aim of determining the impact of the family-centered empowerment model on the quality of life of children with cancer

Method & material: The present study was semi-experimental. 60 children with cancer hospitalized in Shahid Sadoughi Hospital of Yazd were selected by available sampling method and divided into two test and control groups by random assignment. The intervention (implementation of the family-centered empowerment model) was done only for the test group, and the control group received the routine training of the department. The data collection tool in this study was a 2-part questionnaire including: a demographic questionnaire and a specific quality of life questionnaire for children with cancer (Ped QL Cancer Modules), which were completed before and after the intervention. Data analysis was performed using descriptive statistics and independent t, paired t, ANOVA and chi-square statistical tests in SPSS.V20 software.

Result: This study was conducted on 60 children with cancer in two test and control groups (30 people in each group). The results of this study showed that the average score of the total quality of life as well as its areas increased significantly compared to before the intervention in the test group (P-value 0.05). Also, the results showed that the average score of the total quality of life in the test group was significantly higher than the control group after the intervention (P-value 0.05). Also, regarding the areas of quality of life, the results of the study showed that the average score of the test group in the area of treatment complications, mental area, emotional area and social area increased significantly compared to the control group (P-value 0.05).

Conclusion: The results of this study showed that the family-centered empowerment model is effective on the quality of life of children with cancer. For this purpose, providing appropriate and suitable training grounds to prevent the exacerbation of the disease, timely and optimal treatment by using the available facilities, provides the conditions for children and their families to have a better quality of life

G-1094

The effect of Helicobacter pylori on the Thymic Stromal Lymphopoietin gene expression: A systematic review

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Introduction: Thymic Stromal Lymphopoietin (TSLP) is an IL-7-like cytokine that is mainly produced by epidermal keratinocytes and human gastric epithelial cells infected with Helicobacter pylori(H. pylori). This gene plays a role in the immune response through dendritic cells and can cause cancer cells to escape from the immune system. It is also a main regulator of inflammatory immune responses. H. pylori is a Gram-negative, microaerophilic human bacterium that successfully colonizes the gastric mucosa of most people. This bacterium can cause chronic inflammation and significantly increase the risk of duodenal and gastric ulcers disease and gastric cancer.According to the function of TSLP gene, there are hypotheses showing the relationship between this gene and H. pylori, however, the clinical significance of TSLP in the development and progression of gastric cancer is unclear. The purpose of this study was to investigate the effect of H. pylori on TSLP gene expression.

Method & material: This study based on PRISMA guidelines. To conduct this review, we performed a comprehensive search of pertinent databases including PubMed, Google Scholar, Scopus and Web of science. Search term utilized included TSLP , Helicobacter pylori , TSLP Cytokine , Gastric Neoplasms and gastric cancer until June 2022.No language restriction were considered. The number of articles related to TSLP was 210, and the number of articles which related to H. pylori was 48967, after discarding review articles 6 articles that were most related to the relationship between this gene and H. pylori in human gastric mucosa were selected.

Result: All 6 articles were clinical trials and used immunohistochemical methods in their experiments. These studies showed that H. pylori causes overexpression of TSLP and followed that, the overexpression of TSLP gene leads to the development of gastric cancer and metastasis of tumor cells to lymph nodes, liver, positive peritoneal lavage cytology, and vascular invasion. Tumors caused by TSLP gene expression are significantly larger and more advanced. Also, these studies have shown that TSLP gene can increase the production of pro-inflammatory cytokines by dendritic cells and cause tissue damage. However, the studies were significantly different in terms of investigation on cancerous, non-cancerous tissue and different cytokines.

Conclusion: The review of these studies shows that H. pylori is closely related to the development and progression of gastric cancer through increase the TSLP gene expression. However, additional large-scale studies are needed to confirm this matter.

G-1095

The Role Of Artificial Intelligence In Predicting Pregnancy And Delivery Complications :A Systematic Review

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Introduction: Management of complications caused by pregnancy and delivery and reduction of mortality and morbidity is the goals of health systems around the world. It is of great importance to develop diagnostic criteria that have the ability to detect the complications of high-risk pregnancies. The use of artificial intelligence(AI) in the field of gynecology and obstetrics has made great progress. Therefore, this study was conducted to investigating the use of AI in improving the results of pregnancy and delivery.

Method & material: The databases of pubmed, Scopus, Cochrane, Google Scholar, and Persian databases including SID, Iran Medex, and Magiran were searched from 2010 to 2023 to identify relevant articles. Out of 780 relevant published articles, a total of 8 articles were ultimately reviewed systematically. To evaluate the quality of studies, Cochran Group Risk of bias tool was used.

Result: The findings of the present study are divided into two parts:1: the use of AI in the diagnosis of pregnancy complications, included: Gestational Diabetes Mellitus(GDM), placenta accrete, blood pressure disorders in pregnancy,2: the use of AI in the diagnosis of delivery complications, included: preterm labor, postterm labor, fetal macrosomia, mode of delivery, fetal heart pattern changes and uterine activity during labor. In predicting preterm labor, random forest patterns(RF), artificial neural network(ANN) were most effective. Deep learning and IPA accurately predicted preterm rupture of membrane. In the diagnosis of GDM, the ANN Algorithm and support vector machine in addition to diagnostic tests have made accurate predictions, and it has been placed as an accurate software for daily use by pregnant mothers and physicians. RF, support vector machine and multilayer perceptron were effective in predicting the mode of delivery. The decision tree Algorithm and gradient increase showed that history of cesarean

Conclusion: AI can improve the diagnosis, decision-making and management of pregnancy and delivery complications. It can reduce medical errors and provide more reliable predictions, which will reduce the amount of maternal and fetal complications and prevent the recurrence of complications by correcting the process . Also it will reduce the cost of pregnancy care

G-1096

A systematic review of the methods for measuring the length of physician visits

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Introduction: The length of physician visit is an important indicator of the quality of care. Optimal visit length allows for review of relevant information, and adequate time for counseling and patient education. Suboptimal visit lengths may lead to decreased patient satisfaction, non-adherence to the care plan, and lower physician trust. Few studies have been conducted on this issue in Iran. In the future, researchers should be aware of various methods in order to conduct their studies in this field as well as possible. Therefore, this study aimed to identify methods of measuring physician visit length.

Method & material: The current systematic review study was conducted in 2023 according to PRISMA guideline. All relevant studies were searched in databases, including Web of Sciences, PubMed, Scopus, Scientific Information Database, and Magiran. The title and abstract of the articles were examined, and the quality of the studies was assessed by a suitable checklist. The following criteria were used to select studies: published from 2002 to 2023, in English, and access to full text. Also, the exclusion criteria included low-quality studies and studies that only examined the waiting time.

Result: Out of 4,845 studies identified, 119 met the inclusion criteria for review. Most of the studies were conducted from 2019 to 2023 (n= 46), in the United States (n= 33), and in primary health care services (n= 51). Six methods for measuring the duration of the visit were repeated more than other methods, including stopwatch method (observation and checklist) (n= 48), secondary data (n= 16), videotape (n= 13), questionnaire (n= 13), electronic record (n= 8), and audio recorder (n= 6).

Conclusion: To measure the duration of physician visits in Iran, it is suggested to use the stopwatch method. One of the most important advantages of this method is its low cost and lack of need for expertise or high skill. And all the necessary points can be easily transferred to the observer or evaluator. In order to check more precisely the duration of the service after making the arrangements and obtaining the necessary permits, it can be done in a double-blind technique (without informing the doctor and the patient). In this case, without changing the behavior of the studied samples, the actual duration of service provision can be measured.

G-1097

Effect of educational intervention based on Health Belief Model on cervical cancer screening in Isfahan

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Introduction: Cervical cancer is known as one of the prevalent cancers in women, a major public health problem and a cause of high mortality of women in developing countries. Pap smear screening is an effective method for early detection of cervical cancer and decrease its mortality. This study aimed to determine the effect of educational intervention based on the Health Belief Model on cervical cancer screening in Isfahan.

Method & material: The present study is a quasi-experimental interventional research. In this study that was conducted in 2022, a total of 240 women aged 40-59 years covered by health centers in Isfahan, were divided into intervention and control groups (120 women in each group) using a multistage random sampling method. The educational intervention based on the constructs of the Health Belief Model was conducted for the intervention group using the virtual platform. Both groups were assessed before, immediately and two months after the intervention using a valid questionnaire. Gathered data was analyzed using spss-26.

Result: After the intervention, the mean score of knowledge and constructs of the Health Belief Model in the intervention group improved significantly (p0.001). Two months after the intervention, the frequency of Pap smear test in the intervention and control groups was 32 and 2 respectively.

Conclusion: The results of this research showed that the educational intervention based on the Health Belief Model through virtual platform can be effective in performing the pap smear test.

G-1098

The effect of nutrition education program on the quality of life and serum electrolyte levels of hemodialysis patients: a randomized trial study

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Introduction: Chronic renal failure (CRF) is a progressive destruction process and has no definitive clinical signs to diagnose a complete disease. The purpose of this study was to determine the effect of the nutrition education program on the quality of life and serum electrolyte levels of hemodialysis patients.

Method & material: This study was a randomized controlled trial in which 94 eligible hemodialysis patients were randomly assigned to two intervention groups (n = 48) and control (n = 46). In the intervention group, patients were given healthy eating education for four weeks. After two months, samples from both groups completed the Kidney Disease Quality of Life (KDQOL) instrument, and sodium, potassium, phosphorus, calcium, and magnesium levels were also measured and compared.

Result: Before the intervention, there was no significant difference in quality of life scores and electrolytes between the two groups. After the intervention, the quality of life scores in the intervention group were significantly higher than the control group. But after the intervention, the levels of Na, K, P and magnesium in the intervention group were significantly lower than the control group. There was no significant difference in calcium level between the two groups after the intervention

Conclusion: The results showed that e-learning is effective in improving the quality of life and serum electrolytes of hemodialysis patients.

Keywords: chronic renal failure, education, nutrition, quality of life, electrolyte, hemodialysis

G-1099

A comparative study of the compliance of ethical codes between nursing students and nursing staff

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Introduction: Codes of ethics are guidelines for shaping ethical behavior and indicate what beliefs and values should be accepted ethically. Codes of ethics are practical guidelines for nursing care.

Objective: The objective is to compare the implementation of ethical codes among nursing students and employees in one of the teaching hospitals located in western Chenob of Fars province

Method & material: This research is a descriptive-analytical study. The data collection tool was a researcher's questionnaire made by Mahdavi Lanji and Quaidi Heydari, which included three sections of personal information, ethical codes related to the provision of clinical services (23 questions) and communication with the treatment team (8 questions). Sampling was done by census. 400 people including 178 nursing students and 222 nurses participated in the study. The data was analyzed by SPSS software version 22 through descriptive and inferential tests (t-test and ANOVA).

Result: Based on the results obtained in the section of ethical codes related to the provision of clinical services, there was no significant difference between the groups. But in the section related to communication with the treatment team, nursing students obtained a significantly higher score (t=2.04 and p=0.04). And in terms of gender, women in the section of ethical codes related to providing clinical services and communication With the treatment team, they obtained a significantly higher score (t=2.76, p=0.006) and (t=3.45, p=0.01).

Conclusion: due to the presence of more nurses in the bedside, it was expected that nurses would follow the ethical codes better than nursing students, but based on the findings, the nursing students present in the study in the ethical codes related to the relationship with the treatment team, are better than the practicing nurses. They did, but they did not have the necessary and sufficient scientific ability to comply with the ethical codes related to the provision of clinical services. Therefore, it is suggested that hospital managers and nursing trainers use measures such as consistent training of professional ethics during student and service life in order to promote compliance with ethical codes.

G-1100

Examining the expectations and perceptions of undergraduate nursing students from the educational services of a nursing and midwifery school based on the SERQUAL and Kano model.

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Introduction: Students' feedback is an essential factor in evaluating the quality of universities. The purpose of this study is to determine the quality gap and determine the priorities for quality improvement.

Method & material: In this cross-sectional descriptive study, 240 first- to fourth-year undergraduate nursing students were included in the study using the census method. This study was conducted in two stages. In the first stage, the quality of educational services was evaluated in different dimensions from the students' point of view, using the SERQUAL model, and in the second stage, the nature and type of each educational factor was determined using the Kano model, and finally, it was determined how much each of these indicators had. It affects the increase and decrease of student satisfaction. The data collection tool included a demographic-educational information questionnaire and questionnaires designed based on the Seroqual model and Kano model. Data were analyzed with SPSS software version 23 and using descriptive statistics, paired t-test.

Result: The results of the research indicate that the students' perception of the quality of educational services of the faculty was at the average level with a mean and standard deviation of 3.10 (0.75); But there was a significant quality gap in all the five dimensions of the Serkaval model (p=0.001). The highest average gap related to the dimension of responsiveness (0.24) was -1.53 and the lowest average gap related to the dimension of tangibles and confidence (0.14) was -1.18. The analysis of the results was done based on the Kano model using the maximum frequency method, according to which three characteristics out of 30 education quality indicators were placed in the category of students' basic needs, 26 characteristics in the category of functional and one-dimensional needs, and one characteristic in the category of neutral needs.

Conclusion: This study can help faculty officials to determine decision priorities, strategies and policies to improve the quality of educational services and, accordingly, improve students' academic performance and increase their satisfaction as much as possible.

G-1102

The relationship between obesity and otitis media with effusion in children

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Introduction: Otitis media with effusion (OME) is defined as the presence of effusion in the middle ear without the symptoms of acute inflammations including pain and fever. It is one of the most frequent diseases during infancy and childhood period in both developing and developed countries. OME is the most important cause of conductive hearing loss in children. It seems that obesity and overweight may contribute to OME by increasing fat accumulation, gastroesophageal reflux diseases and altering the pattern of cytokine expression. In this study, we evaluated the association between pediatric obesity and developing OME.

Method & material: This case-control study was conducted in Khalili and Dastgheib hospitals which are affiliated with Shiraz University of Medical Sciences (Shiraz, Iran) in 2020. All children aged 2 to 15 years with a definite diagnosis of OME were enrolled in this study. Subjects of the control group were selected from children without OME. The protocol and patient-informed consent forms were reviewed and approved by the local Ethics Committee of Shiraz University of Medical Sciences (IR.SUMS.MED.REC.1398.656). Demographic and clinical features of patients recorded. Otoscopy and tympanometry were performed for all subjects in the case and control groups. The analysis was conducted using SPSS 25 software (SPSS Inc., Chicago, IL, USA).

Result: A total of 148 healthy subjects were recruited as the control group. The case group consisted of 110 patients. The mean age (p=0.040), weight (p0.001), height (p=0.024), BMI (p=0.023), and BMI percentile (p=0.023) in patients with OME were significantly higher than in the control group. There was significantly more male (63.6%) in the OME group compared with the control group (44.0%) (p=0.001). The result of logistic regression showed that higher age (p=0.023), male gender (p=0.001) and higher BMI percentile (p=0.004) were significantly associated with OME.

Conclusion: In this study, we found that there is an association between obesity and OME in children. The result of this study showed that the BMI was significantly higher in patients with OME. It could be explained by increasing fat accumulation, gastroesophageal reflux diseases and altering the pattern of cytokine expression. In conclusion, according to our findings, pediatric obesity might be associated with the development of OME. Physicians should be aware of this issue and precise evaluation of obese children is necessary. Further studies with larger sample sizes and more comprehensive biochemical investigations are required for clarification of this association.

G-1103

Epidemiologic and Clinical Study of admitted patients with hydatid cysts in Kashan Shahid Beheshti Hospital: since 2012 to 2022

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Introduction: Examining the clinical and laboratory features of hydatid cyst disease in the first stage can be an effective help in the health policies of people, for the treatment, control and prevention of the disease. The present study was conducted with the aim of determining the epidemiological and clinical findings of patients with hydatid cysts, admitted to Shahid Beheshti Hospital in Kashan from 2013 to 2014.

Method & material: This case series epidemiological study was conducted with the aim of determining the epidemiological and clinical findings on patients with hydatid cysts who were admitted to Shahid Beheshti Hospital in Kashan from 2013 to 2014. 140 patients had the conditions to enter the study, which 68 were women and most of the patients (58) were in the age group of 40 to 50 years old. Disease based on imaging in the liver and spleen with sonography and in the lungs with chest X-rayChest and brain with CT scan and confirmed by serology were included in the study.The information of the patients in the checklist included the demographic information of the patients, laboratory findings, underlying diseases, etc. in the patients referred to Shahid Beheshti Hospital in Kashan.

Result: The most common underlying disease among patients is high blood pressure and hyperlipidemia have been. The liver is the most common place for hydatid cysts. After the liver, the most common place for the formation of hydatid cysts is the right lung. The most common symptom among patients is pain in the epigastric area and on the right side and upper abdomen and cough. 106 patients underwent surgery and others received drug treatment. 101 patients were discharged with partial recovery. Most patients had only one cyst. In examining the laboratory findings, the number Serum white blood cells of patients with hydatid cyst were 10.21±4.17.

Conclusion: Based on the obtained results, we found that housewives, the age group of 40 to 50 years, are the most susceptible to hydatid cyst. The liver, followed by the right lung, is the most common site for hydatid cysts. The most common symptom among the patients was upper and right abdominal pain followed by cough. The majority of patients were discharged from the hospital after surgery and partial recovery. Therefore, considering the medical and economic importance of this disease, it is necessary to implement strong monitoring programs in order to evaluate the burden of the disease and the progress made in the control programs.

G-1104

Factors Influencing Adherence to Iron Drop Supplementation in Infants Aged 6 to 24 Months: A Systematic Review of Observational Studies

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Introduction: Iron deficiency anemia (IDA) is the most common nutritional anemia in the world and a pervasive health problem, especially in developing countries. Children under two years of age are more prone to be affected by IDA. The best strategy to prevent and treat IDA is to use iron supplements. The objective of this review study was to examine the factors associated with noncompliance (such as non-utilization or inconsistent usage) of iron drop supplementation among infants aged 6 to 24 months.

Method & material: Online databases (PubMed, Scopus, and SID) were searched to retrieve relevant articles published from inception up to July 2023. Among the 2177 articles detected, after removing duplicate and irrelevant titles, 21 cross-sectional studies which met our inclusion criteria were included. Screening for articles and data extraction were conducted separately by two researchers.

Result: Our findings suggest that factors such as mother's education, knowledge, attitude and performance; family's socio-economic status; mother's forgetfulness; exclusive breastfeeding; access to iron supplements; mother's health care status before and after delivery; child's gastrointestinal and dental complications following iron supplementation; bad taste and smell of iron drops; and birth order and gender of the child are the determinants of adherence to iron supplementation.

Conclusion: It can be proposed that the most significant factors affecting the feeding of iron drops to children under the age of two, include: the level of mother's awareness, socio-economic status of the household, and the occurrence of digestive complications following the supplementation. Given these observations, adopting proper policies towards improving the nutritional awareness of mothers and producing iron supplements with minimal side-effect seems crucial.

G-1105

Simultaneous effects of melatonin and N-acetylcysteine (NAC) on TNF-a in the rat cerebral ischemia model

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Introduction: Ischemia is the most common type of stroke, usually due to the middle cerebral artery occlusion (MCAO), and finally leads to devastating brain damage. Inflammation and immune responses play an important role in the pathogenesis of ischemic stroke by activating various types of traumatic cascades. In this work, the simultaneous effects of melatonin and N-acetylcysteine (NAC) were evaluated on TNF-a in the rat cerebral ischemia model.

Method & material: Wistar rats underwent left-side MCAO, and intraperitoneal injection of 50 mg/kg NAC and 5 mg/kg melatonin was performed 24 and 48 hours after ischemia. Animals were then killed on the fourth day after surgery. The groups were Sham, Ischemic, NAC, Melatonin, and NAC + Melatonin. Neurobehavioral tests, triphenyl tetrazolium chloride (TTC), and ELISA was then used.

Result: As compared to the ischemic group, NAC + Melatonin group showed a higher rate in the mean score of the sensory-motor activity ($p \leq 0.05$). QReal-time PCR represented a significant reduction in the expression of TNF-a in the NAC + melatonin and melatonin groups compared to the ischemic group ($p \leq 0.05$).

Conclusion: Based on the data from the present study, it can be concluded that the simultaneous use of NAC and melatonin can improve neurobehavioral function by modulating TNF-a expression in the ischemic brain cortex.

G-1107

Policy strategies to control the conflict of interest caused by dual employment of doctors: a review study

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Introduction: Conflict of interests is one of the roots of corruption, which can be seen in various forms and examples in the health system. Employees having two jobs is one of the common types of conflict of interest, which is considered as a significant challenge by managers and policy makers of the health system. Doctors having two jobs is a situation in which a doctor has more than one job at the same time inside or outside (private sector) of the public sector. The purpose of this study is to review the studies on dual employment in the health system and provide solutions to control the conflict of interests caused by the secondary employment of doctors in the private sector according to the conditions of the country

Method & material: Searching for sources in reliable domestic and foreign databases in the period from 2000 to 2022 using the keywords multiple job , dual practice , health professional , policy options in PUBMED databases. Web of Science Cochrane, SID, MagIran, Civilica were done. After a three-stage screening based on the inclusion and exclusion criteria on the results, a total of 12 studies were included in the study to provide policy recommendations, which were examined by the qualitative content analysis method.

Result: In general, management policies and strategies controlling the conflict of interests caused by dual employment in the health system are divided into two main groups of soft and hard policies. Soft policies include applying financial restrictions, limiting activity time and issuing private activity licenses, creating non-financial incentives and self-regulation of doctors. Hard strategies also include a complete ban on two jobs. Also, in the reviewed studies, most of the recommendations are related to creating non-financial incentives.

Conclusion: The studies showed that the use of strict policies in the first stage may be faced with lawlessness and resistance of doctors and fuel corruption in the health system. Therefore, it is recommended that the process of interventions with appropriate time targeting gradually leans from soft policies to stricter policies. It is suggested that the effectiveness of these policies be measured first, before deciding to implement them in the pilot areas, taking into account implementation considerations.

G-1111

Compatibility study of kojic acid and azelaic acid used in semi-solid preparations

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Introduction: Kojic acid and azelaic acid are skin-lightening agents used in the treatment of melisma. Both of them can decrease the production of melanin through the inhibition of tyrosinase. These ingredients are utilized in the extemporaneous preparation. However, the compatibility between them is not studied yet. Therefore, in recent study, the physicochemical compatibility of kojic acid with azelaic acid is evaluated.

Method & material: kojic acid and azelaic acid were mixed (in the ratio of 1:1) using vortex mixer. Then, 20% w/v water was added and mixed well. These samples were kept in the oven at 40 °C for two months. DSC and FT-IR were employed to analyze the compatibility. A validated HPLC-UV analytical method was performed to quantify the amount of kojic acid remaining after stress.

Result: The color of the mixtures containing kojic acid and azelaic acid was changed visually. DSC and FT-IR data illustrated the initial incompatibility of the formulations. The absence of endothermic peak (114 °C) in the DSC thermogram of azelaic acid and the lack of stretching vibration peak at 1696 cm-1 refer to the degradation of azelaic acid. Also, the HPLC outcome, indicated 81.82 ± 3.68 % of kojic acid remaining in the samples after stress test. This finding is in confirmation with the incompatibility of kojic acid with azelaic acid. This method have a good linearity (10-80 µg/mL), acceptable accuracy (98-99.5%), precision (RSD2%), low LOD, and LOQ (2.65, 8.04 µg/mL, respectively).

Conclusion: The color of the mixtures containing kojic acid and azelaic acid was changed visually. DSC and FT-IR data illustrated the initial incompatibility of the formulations. The absence of endothermic peak (11)

G-1112

The effect of vitamin E supplement on bilirubin levels in infants with hyperbilirubinemia: a double blind randomized clinical trial.

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Introduction: Previously, the effectiveness of vitamin E on bilirubin levels in infants has been investigated but the results have been inconsistent to determine the effect of oral vitamin E on bilirubin levels in term infants hospitalized in the neonatal intensive care unit (NICU).

Method & material: This study was conducted as an interventional double blind randomized clinical trial in the NICU of Sanandaj Besat Hospital. The study population consisted of infants between 37 weeks and 42 weeks and 6 days of gestation who required phototherapy. A total of 138 infants were selected and randomly assigned to two groups, intervention and placebo. In addition to phototherapy, the intervention group received oral vitamin E at a dose of 0.5 cc daily, while the placebo group received 0.5 cc of oral dextrose serum daily. The data were analyzed using STATA software version 17.

Result: After selecting and randomly allocating the infants into two groups, 68 infants in vitamin E group and 70 infants in placebo group were examined and compared. Changes in bilirubin levels in the vitamin E and placebo groups 24 hours after intervention were not statistically significant compared to baseline, and the results indicated that vitamin E did not reduce total bilirubin levels 24 hours after consumption. However, at 48 and 72 hours after intervention, the vitamin E group had decreases in total bilirubin levels compared to baseline of -0.05 ± 0.041 and -0.17 ± 0.11, respectively, but these changes were not statistically significant. Subgroup analysis based on sex showed that female infants had a greater reduction in total bilirubin levels compared to males.

Conclusion: The results of this study showed that the consumption of oral vitamin E did not significantly reduce bilirubin levels in term infants with hyperbilirubinemia during the 72 hours of treatment.

G-1115

Application of the campaign in the prevention of COVID-19 in health volunteers

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Introduction: The epidemic nature of the Covid-19 has been effected on the personal, family and social relationships of people in all countries of the world because of its fast spread and transmission. The campaign includes a set of educational activities that are performed aiming at data transferring in line with definite purposes. Thus, regarding the importance of the disease and occurrence of the pandemic, the present study was conducted with the purpose of designing and administrating the COVID-19 Prevention Campaign and investigating its effectiveness on the awareness, attitude and behavior of the health volunteers.

Method & material: The present study was a semi-experimental research, in which the sampling was done in a census way with 200 people participated. In this study, which was done as pre- and post test, the amount of knowledge, attitude and behavior of health volunteers were evaluated by the designed questionnaires. The campaign was held for two months, which has benefited from the five methods of pamphlet, banners, films, social networking sites, and educational classes.

Result: After the campaign, the awareness level, attitude and behavior of Health Volunteers increased to 35.1%, 30.09%, and 29.2% respectively, which was meaningful statistically. health volunteers consider educational film broadcasted on TV and social networking as the most appealing and effective medium used. On the other hand, the results showed that 52.4% of the participants speculated that the campaign was a proper method in educating about Corona virus, while 10% see it improper in this regard.

Conclusion: holding the campaign can trigger positive changes in improving the awareness, attitude and behavior of health volunteers, leading to the prevention of a plethora of health problems in society.

G-1116

Investigating the Barriers to Effective Communication between Nursing Students and Patients from Nursing Students; Perspective

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Introduction: Considering the results of the previous studies indicating that nursing students cannot effectively communicate with patients, the present study aimed to determine the barriers to effective communication between nursing students and patients.
Method & material: This descriptive-analytic study was conducted on 152 nursing students of Yazd University of Medical Sciences, who had started clinical work with patients during their student days (beginning of internship) in 2022. The study tool was a two-part questionnaire; the first part included demographic information of the nursing students and the second part consisted of 35 questions about the barriers to communication between students and patients, which were scored using a 5-point Likert scale. The data were analyzed using statistical methods and SPSS 22
Result: According to the results of the present study, students believed that the factors related to students were more important (40.76±8.85) than other barriers to communication between nursing students and patients. In each of the areas of communication barriers, the highest score obtained was related to the cultural difference between nursing students and patients, the high interference of companions, the high workload of students during the day , and inappropriate environmental conditions.
Conclusion: There are barriers to communication between nursing students and patients. This demands attention and planning by the related authors and officials to be resolved.

G-1117

Applications of telemedicine in the era of covid-19: a systematic review

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Introduction: Covid-19 has been affecting human health worldwide for over 3 years, causing social and economic difficulties due to its rapid spread and high transmission power. According to World Health Organization Social distancing is a crucial strategy to reduce pandemic complications and mortalities. Due to the increased need for health services in this era, Medical centers are considered as high-risk areas for virus exposure. Therefore, technology and information technology play important roles in adapting to the conditions of pandemic era in various fields, including the healthcare system. Telemedicine, as the first line of defense for healthcare workers and patients, is the usage of information and communication technology, which provides the possibility of communication between the therapists and the patients for the provision of health services in separate locations while saving time and money. This study aims to review the dimensions, goals, and challenges of using telemedicine during the Covid-19 pandemic era.

Method & material: In this systematic review, Persian and English articles were searched using the keywords telemedicine, telehealth and COVID-19 in both Persian and English languages in PubMed, Google Scholar and Science Direct databases from 2019 onwards. Out of 87 articles obtained, 38 articles were in line with the study, which were analyzed, and their results were extracted.

Result: Telemedicine is mostly used in critical situations such as wars, natural disasters, pandemics, and epidemics, including Covid-19. It is also utilized for educational and research purposes. This technology facilitates access to medical care in remote and deprived areas. It can also reduce medical and pharmaceutical errors by creating a platform to share experiences and opinions of experts. Telemedicine is actually a sub-branch of tele-health. Its most widely used specialized forms in the Covid-19 pandemic include tele-consultation, tele-diagnosis, tele-homecare, tele-surgery and tele-education. However, this technology has some challenges, including legal considerations of countries, data security, and privacy which can be resolved by enacting comprehensive laws and specialized training of employees.

Conclusion: Due to the increasing progress of technology and the importance of telemedicine, Covid-19 pandemic era can be considered as a good opportunity for creating the necessary infrastructures for utilizing this technology, especially in developing countries. Therefore, the expansion of this technology not only moderates the challenges of this pandemic, but also paves the way for benefiting from telemedicine in the future.

G-1118

Harnessing the Potential of MicroRNAs: Advancements in Early Detection of Prostate Cancer

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Introduction: Prostate cancer is a prevalent and often fatal malignancy affecting men worldwide. Unfortunately, the current treatments for prostate cancer are often ineffective, resulting in a significant number of men succumbing to the disease. Furthermore, the progression of tumors, even after initial regression with some therapies, highlights the need for accurate screening and personalized treatments within the framework of predictive, preventative, and personalized medicine. One promising area of research in this field involves the identification of microRNAs. MicroRNAs have recently emerged as active contributors to cancer onset, progression, and the development of drug resistance against standard anticancer therapies. These small, single-stranded, non-coding molecules play a vital role in regulating gene expression after transcription, impacting various biological processes. Understanding the role of microRNAs offers potential for improving early detection methods and enabling personalized treatment strategies for prostate cancer.

Method & material: Relevant and up-to-date articles were retrieved from prominent scientific databases, including PubMed, Google Scholar, and Scopus, covering the period from 2017 to 2023. The search was conducted using specific keywords such as prostate cancer and microRNA .

Result: MicroRNAs play a crucial role in the development and progression of prostate cancer. These small RNA molecules can regulate gene expression by binding to target messenger RNAs, thereby modulating the activity of various cellular pathways involved in cancer pathogenesis. In prostate cancer, specific microRNAs have been identified as either tumor suppressors or oncogenes, influencing critical processes like cell proliferation, apoptosis, and metastasis. Dysregulation of microRNA expression patterns is frequently observed in prostate cancer, highlighting their potential as diagnostic biomarkers. Additionally, targeting aberrantly expressed microRNAs shows promise as a therapeutic strategy, offering novel opportunities for personalized treatment approaches and improving patient outcomes.

Conclusion: MicroRNAs exhibit fascinating characteristics as their roles can vary depending on physiological and pathological circumstances, as well as the specific genes and interactions involved. They play a crucial and valuable role in regulating gene expression as a cellular response to adverse environmental conditions such as hypoxia, nutrient deprivation, and DNA damage, which are key aspects of pathogenesis. Notably, microRNAs also function as control systems, monitoring the proteins responsible for DNA repair, thereby serving an oncogenic function. Understanding these multifaceted roles of microRNAs provides valuable insights into the complex mechanisms underlying disease development and progression.

G-1119

Exploring the Relationship Between Multiple Sclerosis and HPV: Implications for Vaccination Strategies

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Introduction: Multiple Sclerosis (MS) is a chronic autoimmune disorder that affects the central nervous system, primarily impacting women aged 20–40. It damages the protective covering around the nerves, leading to symptoms such as vision problems, fatigue, numbness, and cognitive disorders. On the other hand, Human Papillomavirus (HPV) is a common sexually transmitted infection responsible for most cervical and penile malignancies. It is crucial to prevent HPV infections through vaccinations. However, it is worth noting that immune disease-modifying treatments (DMTs) can increase the risk of HPV-related diseases in MS and other autoimmune patients, especially in areas without cervical screening.

Method & material: A systematic search was conducted from 2009 to 2023 in scientific databases such as PubMed, Scopus, Google Scholar, and the World Health Organization (WHO) website. The search aimed to investigate HPV prevalence and incidence in MS patients and explore the effects of the HPV vaccine on both patients and control subjects. The search terms used were multiple sclerosis, HPV, and HPV vaccination .

Result: DMTs offer significant benefits for managing MS but come with immune-suppressive effects, raising the risk of opportunistic infections and cancer. Fingolimod, an effective DMT, reduces MS relapse rates by 50% but may increase susceptibility to HPV-related diseases like cervical cancer. Therefore, before starting fingolimod therapy, it is advisable to consider administering HPV vaccination, especially in females aged 9-26 who haven't received it. The safety profile of HPV vaccination is generally favorable, and significant adverse events (SAEs) are uncommon. However, media reports emphasizing the severity of multiple sclerosis and the potential neurological adverse effects attributed to the vaccine may increase concerns about vaccination in cases of concomitant diseases, such as MS, and familial history. Systemic adverse events following vaccination include fever, nausea, vomiting, diarrhea, vertigo, and myalgia. It has been demonstrated that there is no correlation between HPV vaccination and the onset or progression of multiple sclerosis or other demyelinating disorders.

Conclusion: Vaccination remains a crucial technique for preventing HPV infection in MS patients, particularly in females, although it can't cure existing HPV infections or reduce the need for screening. Moreover, screening programs should be prioritized alongside vaccination to ensure comprehensive disease management and prevention.

G-1120

Evaluation of temperaments types using anthropological indicators in healthy men 20 to 30 years old

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Introduction: Nowadays, genes are known to be the origin of individual differences in phenotype and performance. In ancient Greek, Chinese, and particularly Iranian medicine, these individual differences have been addressed by evaluating various physical and behavioral characteristics and attempting to classify individuals into groups called temperaments based on the dominance of Coldness-Warmness and Wetness-Dryness qualities, each group having unique characteristics. With the aim of integrating ancient and modern medicine, which is evidence-based science, this study attempted to investigate the relationship between somatometric (anthropometric) features and individuals' temperaments.

Method & material: In a cross-sectional study, 100 healthy men aged 20 to 30 were randomly selected, and variables such as height, weight, hand dimensions, and skin-folds thickness were measured with appropriate tools. Body fat percentage was calculated using the Durnin/Womersley method (four skin-folds) with a caliper, and then the Salmanzadeh temperament questionnaire was completed by the participants. The collected data were analyzed using SPSS software.

Result: Calculations showed that 21 individuals (21.4%) had cold-wet, 14 individuals (14.3%) had cold-dry, 14 individuals (14.3%) had warm-wet, and 29 individuals (29.6%) had a warm-dry temperament. Nine (9.2%) and 11 individuals (11.2%) had cold-moderate and warm-moderate temperament, respectively. Two individuals had a moderate-moderate temperament, was excluded from the calculations due to absence of true temperate temperament. When comparing individuals based on warmness-coldness without considering wetness-dryness, no significant difference was observed. Totally, individuals with wetness quality had significantly higher weight, BMI, waist and hip circumference and BFP than those with dryness (P0.05). Weight, BMI, waist and hip circumference, and BFP were higher in warm-wet group than those with a warm-dry temperament (P0.05). Individuals with a cold-wet temperament had significantly higher weight, BMI, waist and hip circumference and higher BFP than cold-dry group (P0.05). The BMI and waist circumference of the individuals with a warm-dry temperament were significantly higher than cold-dry group(P0.05).

Conclusion: It seems that there is a relationship between temperament and some anthropometric indices, especially weight, BMI, and body fat percentage. These differences were more evident when comparing wetness-dryness qualities. The mean BMI and body fat percentage were higher in individuals with wet dominant temperaments, indicating a susceptibility to overweight and obesity in these individuals. Therefore, by determining individuals' temperaments, personalized recommendations can be made for improving their lifestyle. Further research is needed to confirm these findings and explore the underlying mechanisms of the relationship between somatometric features and temperament.

G-1121

Attitudes and Willingness to use telemedicine in post–COVID era

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Introduction: This study aims to investigate the attitude, willingness, and usage of telemedicine among the public community of Iranian considering the emergence of COVID-19 and people's acceptance of telemedicine.

Method & material: A nationwide cross-sectional study was conducted among the general population using an anonymous, web-based questionnaire from October 2021 to November 2022. Our target population was Iranian over 18 years old and who had visited a physician at least once in their lifetime. Our questionnaire consists of six items regarding baseline demographic information, eight questions on a five-point Likert scale to evaluate the e-health literacy level of participants (eHEALS questionnaire), eight close-ended questions to evaluate the level of people's familiarity with telemedicine, the level of telehealth services usage by people during the COVID era and before. The rest of the questionnaire included eight questions on a five-point Likert scale to measure people's attitudes and perceptions toward telemedicine. Finally, the fifth section included four closed questions to assess people's willingness to use telemedicine in the post-Covid era. All collected data were extracted from electronic form directly to an Excel spreadsheet and appropriately

Result: Eighty percent of our studied population were familiar with the telemedicine term or related ones. Only thirty percent of subjects had used telemedicine services before the COVID pandemic. Also, more than seventy percent were at an average level of awareness in terms of familiarity with e-health. Overall, attitudes toward telemedicine were positive and more than two-thirds of the population were willing to use telemedicine in the post-COVID era. Correlation analysis showed that people with higher e-health literacy scores have more positive attitudes toward telemedicine. Moreover, there is a significant correlation between eHEALS score, attitudes to telemedicine, and willingness to telemedicine usage before the COVID pandemic.

Conclusion: This study provides new insights into the usage, knowledge, perception, and attitude of Iranians toward telemedicine services for health policymakers and clinicians. Moreover, our results could be used to investigate the feasibility of implementing e-health and telemedicine services based on the level of willingness to use telemedicine

G-1122

Evaluation of the Anti-Cancer Effects of Sodium Alginate Polyhedral Oligomeric Silsesquioxane Bionanocomposite Containing Berberine Chloride in Breast Cancer Cells

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Introduction: During the past few decades, many different carrier systems have been examined to obtain controlled and targeted delivery systems for various types of drugs. Among them, nanocomposites and polysaccharides have attracted much attention and have been used in a broad range of biomedical and pharmaceutical fields. One of these polysaccharides is alginate (Alg), which is a marine natural anionic polysaccharide. It has been used in combination with polyhedral oligomeric silsesquioxane (POSS) in this investigation. The aim of this project was to design, synthesize and characterize berberine chloride (BB)-loaded Alg/POSS nanocomposite as a potential nanocarrier for breast cancer treatment.

Method & material: POSS nanoparticles were synthesized in acidic media from (3-aminopropyl)triethoxysilane (APTES) as starting material throughout hydrolysis and condensation reaction. The samples were characterized by using a Bruker Fourier transform infrared (FT-IR) spectrometer, Bruker D8 Advance diffractometer, VWGA3 TESCAN (20.0 KV) microscope field emission scanning electron microscope (FE-SEM), and transmission electron microscopy (TEM; Philips CM10 operating at 60 kV tension). BB-loaded Alg/POSS nanocomposite was prepared using in-situ method. To this end, clear solutions of Alg (solution A) and POSS nanoparticles (solution B) in the presence of drug solution were mixed and then separated by centrifuge.

Result: We found that Alg/POSS nanocomposite exhibits honey comb morphology with more pores and gaps which could facilitate the penetration of water and enhances drug absorption. As we found, Alg/POSS showed a high cumulative BB release in acidic medium. In Korsmeyer-Peppas model the k value at pH 4.5 was higher than that of neutral condition, indicating the higher release rate of BB at pH 4.5.

Conclusion: The combination of polyhedral oligomeric silsesquioxane (POSS) NPs with alginate was carried out for the first time in this study. Our results showed that in-situ encapsulation of BB by Alg/POSS nanocomposite increased drug loading efficiency. These results also indicated that BB release was faster at acidic pH than pH 7.4. Easy preparation, using high-tech materials and pH-responsive release behavior made the constructed nanocarrier an ideal hybrid material for the controlled delivery of BB.

G-1123

Investigating the effects of telemedicine in palliative care of cancer patients: a systematic review

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Introduction: Telemedicine is the use of emerging technologies to provide health services, especially in populations with limited access to these services. Palliative care is based on clinical standards and includes prevention to pain relief and improvement of quality of life. Cancer is a kind of disorder in different organs of the body, and due to long-term treatment and lifelong follow-up, the use of new solutions, including telemedicine, can reduce the challenges of cancer patients. Therefore, considering the importance of this issue and summarizing its results, the aim of the present study is a systematic review on determining the effects of telemedicine in palliative care of cancer patients.

Method & material: The search was conducted in reliable databases such as SID, Scopus, PubMed and Google Scholar with the keywords telemedicine, palliative care and cancer patients from 2019 to 2023. The inclusion criteria included descriptive studies and randomized trials that investigated the effects of telemedicine in the palliative care of cancer patients, and its participants included people who had been diagnosed with cancer for at least 3 months and who could They used telemedicine equipment.

Result: The result of the search was 315 articles, of which 8 articles were finally reviewed. According to the reviewed studies, the positive effects of telemedicine in palliative care can be saved in time and money, facilitating the provision of health services, reducing the risk of infection, supporting the family, improving the management of weakness, fatigue and pain, improving the sense of well-being. Safety in the patient and family, reduction of fear and anxiety of patients and improvement of cognitive function. Among its negative aspects, we can mention technological barriers, lack of sufficient training in this field, reduction of the transfer of empathy and lack of direct supervision in the use of arbitrary opioids. .

Conclusion: Despite the obstacles in this method, the reviewed studies listed telemedicine as an effective method in palliative care of patients. Since these patients often face problems in visiting care providers due to recurrence of symptoms, movement problems and dependence on caregivers; Therefore, the use of telemedicine can be considered as a new and effective solution in this field.

G-1124

Using tripod beta technique considering the economic approach for the analysis of accidents in the automotive industry

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Introduction: In order to prevent repeated incidents, root causes and corrective measures should be announced in a systematic way. Due to the use of many machines, large manpower, different work shifts and the pressure to produce more cars, the automobile industry is considered one of the important centers of occupational accidents. The main focus of this research is on the tripod beta technique, and the second objective of the study is to examine the relationship between the physical factors of the work environment and the occurrence of accidents in the automobile industry.

Method & material: The accidents that occurred during the years 1390 to 1398 of one of the automotive industries and the evaluation data of harmful physical factors were investigated. Incident information was collected through documentation of incidents in recent years. Then sound, lighting and thermal stress were selected as physical factors related to incidents for analysis and analyzed using the tripod beta technique. Finally, the costs related to the occurrence of accidents were evaluated by the method of calculating the cost of lost working days to check the economic approach.

Result: Tripodbeta results showed that about 50.18 percent of accidents in the automobile industry are due to defects in the provision of proper equipment, training and proper implementation methods. Provision of suitable equipment (25.7%), training (24.48%) and inappropriate implementation method (21.6%) are the reasons for accidents in the second to fourth place respectively. Also, the results showed that the noise and atmospheric conditions of the work environment had a statistically significant relationship with the occurrence of accidents. But the lighting did not show a significant relationship with the occurrence of accidents. The economic analysis of incidents using lost working days showed that a total of 7,206,705 Tomans were imposed on the company as a result of the investigated incidents.

Conclusion: The results showed that in the automobile industry, lack of training, non-standard designs and improper maintenance were among the most important reasons for the occurrence of accidents in this industry. By identifying the root causes of the accident, tripod beta technique is introduced as a suitable technique for analyzing accidents in the automobile industry. Also, the results showed that the incidents occurring in this industry impose a lot of direct and indirect costs on the company, and if the company tries to solve these root causes, it can effectively use cost-benefit techniques. Reduce excess costs imposed.

G-1125

Healing Effects of Arnebia Euchroma Ointment on Burn Wound in Rats: A Systematic Review

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Introduction: Nowadays, herbal-based medicines with antimicrobial and anti-inflammatory activities, such as Arnebia euchroma, have been considered in the treatment of burn wounds. This systematic review study aimed to determine the healing effect of Arnebia euchroma L ointment on burn wounds in rats.

Method & material: The current research was conducted in accordance with the PRISMA guidelines and by searching the keywords Arnebia euchroma , burn , and rat and their synonyms in English and Persian without time limitation until May 4, 2022, in PubMed, Scopus, and Science Direct databases for English articles and SID, Magiran, and Irandoc databases for Persian articles were explored. All short articles, letters to the editor, conference abstracts, observational studies, review articles, as well as articles whose full version could not be obtained, were excluded from the study process. The inclusion criteria for this study were laboratory research articles focused on the effect of Arnebia euchroma L on wound healing in rats. The retrieved studies were entered into EndNote software. At first, duplicate articles were identified and removed using the software. Then, the title and abstract of all studies were checked based on the entry criteria, and the required information

Result: Among seven articles included in this research, four articles studied the healing effect of the medicine on second-degree burn wounds, one article addressed third-degree burn wounds, and two articles generally studied burn wounds. Arnebia euchroma L ointment has been found to be effective in healing wound burns in approximately 57% of studies, while the rest of the studies have emphasized its ineffectiveness in accelerating burn wound healing. The findings indicate that Arnebia euchroma L ointment is an effective medicine in accelerating burn wound recovery and healing.

Conclusion: Arnebia euchroma ointment is effective in both healing of burn wounds. However, there is an insignificant difference between the number of studies that have found this medicine effective and the number of those that have found it ineffective. Further studies are suggested to determine the effectiveness of this medicine.

G-1126

Investigating the feasibility of implementing telemedicine technology based on the existing infrastructure in Ferdows teaching hospitals

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Introduction: For the successful implementation and optimal use of telemedicine technology, this technology's necessary infrastructure and success factors should be considered. The present study was conducted to investigate the feasibility of implementing telemedicine technology based on the existing infrastructure in two teaching hospitals of Ferdows city.

Method & material: The current research was of a cross-sectional descriptive study that was conducted in the teaching hospitals of Ferdows city in 2022 The research community included 49 doctors, information technology unit staffs, and managers. In this study, the census method was used and the research community was considered as a sample. The tool of data collection was Ghasemi et al.'s questionnaire, which has 44 multiple-choice questions and consists of 6 sections. This questionnaire was created to measure the awareness of employees and the feasibility of implementing information technology in hospitals. The reliability of the questionnaire was obtained by Cronbach's alpha method of 87%. Questionnaires were presented to people with an easy access approach and face to face. After completing the questionnaires, the information was entered into the statistical SPSS version 16 and descriptive statistics (frequency, mean and percentage) were used to analyze the data.

Result: 49 employees participated in this study. Despite the possibility of communicating between the systems of each hospital's departments, more than 70% of the employees did not have access to high-speed Internet and they couldn't connect from outside the hospital. The level of familiarity of employees with telemedicine technology was at an appropriate level (72.1 %). Also, the strategic plan of the studied hospitals included a telemedicine program, but so far, telemedicine services have not been provided in these hospitals. Providing education (92.3 %), providing care (84.6 %), admitting patients (76.9 %), consulting (69.2 %) and performing surgeries (15.3 %)were the most important applications of this technology from the point of view of the people studied. Also, the problems of insurance and reimbursement (100%) and the lack of technical staff (100%) were raised as infrastructural obstacles for the implementation of telemedicine technology.

Conclusion: Despite the availability of some telemedicine infrastructure in the hospitals of Ferdows city, these hospitals are still not able to provide telemedicine services. Therefore, it is suggested to take measures to provide the necessary facilities and infrastructure in this direction.

G-1127

assessment of the staff of the health information management department of the educational hospitals of Ferdows city

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Introduction: Changes caused by technological developments in the health information management department have increased the importance of this sector and created new educational needs for staffs in this department. The current research aims to investigate the educational needs of the staffs of the health information management (HIM) department in the educational hospitals of Ferdows city.

Method & material: The current research was a descriptive study conducted in the year 1400 in the educational hospitals of Ferdows city. The research population was the staffs of the HIM department. In this study, the census method was used and the research community was considered as the research sample. The inclusion criteria were health information management staff working in Ferdows hospitals who were willing to participate in completing the questionnaires. Exclusion criteria included other medical staff other than health information management staff - such as doctors, nurses, pharmacists, laboratory technicians, operating rooms, etc. Also, employees who did not want to cooperate or could not answer the questions of the questionnaire were excluded from the study process. The data collection tool was Zarei et al.'s questionnaire. The collected data were analyzed using descriptive statistics methods in SPSS version 19..

Result:30 staffs participated in the research. From the staffs' point of view, the average need for training in the fields of computer and information technology, data collection, health information classification, health statistical activities, and occupational safety and health were 65%, 70%, 70%, 65% and 60%, respectively. Results showed the high need to training (2.1 to 3) in these five sections.

Conclusion: The results of the present study showed that the educational needs of HIM staffs are high, so the best option for improving the skills of them is holding training courses. To increase the efficiency of these courses, it is suggested that training courses be held according to the skill levels of the staffs.

G-1129

Comparative study of colonoscopy findings in asymptomatic individuals with positive and negative FIT

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Introduction: Colon cancer is one of the most important health issues and the most important digestive tract cancer in developed countries. CRC (Colorectal Cancer) is the third most current cancer and the second cause of death worldwide in both men and women, accounting for 11% of all cancer diagnoses. Like other cancers, the best way to reduce the mortality caused by colorectal cancer and to choose the right treatment method is early distinction, which is why screening tests for quick diagnosis are a vital actionle. Identifying this cancer is based on colonoscopy, so finding the planning method is necessary. The purpose of this study is to compare colonoscopy findings in asymptomatic individuals without positive and negative FIT (Fecal Immunochemical Test).

Method & material: This correlational and case-control study was conducted in Shariati Hospital and selected centers of Isfahan province during 2017. Among the patients who met the inclusion criteria, 90 patients were selected using available methods. The average age of the subjects was 59.17 ± 6.55 years, of which 32 (35.6%) were male and 58 (64.4%) were female. Also, after obtaining written consent, FIT test was taken from all patients and they were divided into two groups of 45 people: the first group with positive FIT (case group) and the second group with negative FIT (control group). After registering the patients' information and receiving the colonoscopy and pathology results, the data were analyzed with SPSS 24 and using independent T-tests and analysis of variance (ANOVA).

Result: This study was conducted with the aim of comparing colonoscopy findings in asymptomatic individuals with positive and negative FIT. The findings indicate that the frequency of polyps and erythema in patients with positive FIT was significantly higher than in patients with negative FIT, but the frequency of pathological findings in the two groups of positive and negative FIT did not have a statistically significant difference (P0.05). The lack of difference with age and gender grouping remained insignificant (P0.05).

Conclusion: It can be seen that the FIT method is not a reliable method for distinguishing pathological findings from malignancy, and due to the increasing prevalence of colorectal cancer, colonoscopy should be performed in high-risk individuals with the aim of pathological diagnosis in patients.

G-1130

The association between serum metabolic parameters, and oxidative stress status with the risk of Gallstone Disease in women: a case–control study

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Introduction: One of the most prevalent gastrointestinal tract ailments is Gallstone Disease (GD). Some studies have investigated the role of serum metabolic biomarkers and oxidative stress status in GD but the results are inconsistent. The object of the current study was to assess the association between metabolic parameters, and oxidative stress status with GD in women.

Method & material: This sex and BMI matched case-control study was conducted on a sample of 75 women diagnosed with GD and 75 healthy women at the Gastroenterology and Hepatology Clinic of Shahid Beheshti University of Medical Science in Tehran, Iran. This study was approved by the Ethical Committee of the Faculty of Nutrition and Food Sciences, Tabriz University of Medical Sciences, Tabriz, Iran (research ethics number: IR.TBZMED.REC.1398.1202). All eligible subjects completed the written informed consent form. The characteristics of participants were collected using a general information questionnaire. To measure serum parameters, blood samples were collected from all participants after 12 hours of fasting. Associations between serum biomarkers and GD were assessed by multivariate logistic regression and represented as odds ratio (OR) and 95% confidence interval (CI).

Result: There was no significant difference in mean serum levels of triglyceride, total cholesterol, and LDL cholesterol between the case and control groups. Mean serum levels of total antioxidant capacity, malondialdehyde, FBS, insulin, and insulin resistance index values (HOMA-IR) were significantly higher in the case group than in the control group (p 0.05). The mean serum level of HDL cholesterol in the control group was significantly higher than the case group (p 0.05). The study found a significant negative association between the risk of GD and serum HDL-c (OR: 0.84; 95% CI: 0.76–0.95, p = 0.008). Also, a significant positive association was detected between HOMA-IR (OR: 17.32; 95% CI: 3. 65-82.06, p 0.001), and Malondialdehyde (OR: 3.27; 95% CI: 1.16-9.19, p= 0.025) with the risk of GD.

Conclusion: Present results suggested that higher serum HDL-C was related to a lower risk of GD, and higher HOMA-IR values and serum malondialdehyde were associated with a higher risk of GD. To support these findings more studies are required.

G-1131

Relationship between Thrombocytopenia Syndrome and Corona Vaccine in pregnant women: A systematic review

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Introduction: Covid-19 is a pandemic respiratory disease caused by the SARS-CoV-2 virus. With vaccination, which is the most effective preventive measure against this virus, the number of deaths and infections has decreased significantly. Based on mechanism of action, these vaccines are divided into three main groups, which are: Inactivated vaccines (Sinopharm), mRNA vaccines (Pfizer and Moderna), and viral vector vaccines (Astrazenka). Studies show that corona vaccine injection can lead to rare side-effects such as thrombocytopenia (7 cases per million). Thrombocytopenia is a condition that the number of blood platelets decreases (less than 15,000 per microliter) and created autoantibodies against platelet antigens accelerate the destruction and inhibit the production of platelets. Since pregnant women are considered a high-risk group among Covid-19 patients, the safety of these vaccines should be evaluated for them. In this review, we are looking to investigate the relationship of thrombocytopenia caused by the corona vaccine in pregnant women.

Method & material: This study is based on PRİSMA guidelines. The search was conducted using PubMed and Google Scholar databases for studies published between 2021 and 2023. The search terms used are: covid-19, coronavirus, SARS-coV-2, vaccine, pregnancy, and thrombocytopenia. Relevant information was selected and reviewed. A total of 134 results were found, and 9 articles that were most related to our title were selected for this study.

Result: Among the selected articles, three studies have rejected the existence of thrombocytopenia in pregnant women and Six studies have confirmed the occurrence of thrombocytopenia in pregnant women. Among these 6 articles, in 2 studies, cases have received mRNA vaccines (moderna and pfizer), and 4 studies have discussed adenovirus-vector vaccines. In these studies, Symptoms of thrombocytopenia appeared 5-30 days after receiving the vaccine. In most of these cases, platelets and fibrinogen levels Decreased, while D-dimer and platelet factor 4-polyanion complex levels increased.

Conclusion: Thrombocytopenia syndrome caused by corona vaccine injection in pregnant women is a rare complication that was observed especially in those who received adenovirus vaccines. More caution should be taken about vaccination in pregnant women. However, to prove the connection between corona vaccine and the occurrence of thrombocytopenia in pregnant women large-scale studies are needed.

G-1132

Investigating associated factors with length of hospital stay after colorectal surgeries: a systematic review

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Introduction: Optimal length of hospitalization, is the minimum required stay prior to safe discharge. Nowadays, reducing length of hospitalization without decreasing the quality of services is very important. From the healthcare Policy makers view point, the hospitalization duration is noticeable because of Increase in costs, lack of hospital beds and delayed new admission. Also prolonged hospital stay results in poorer surgery outcomes, iatrogenic complications, hospital acquired infections, extra costs and lower life quality for patients. The objective of this study is assessing the related factors to length of hospital stay after colorectal surgeries, as one of the most prevalent surgeries.

Method & material: In this systematic review, articles since 2000 in both English and Persian languages have been searched in PubMed, Google Scholar and Scopus databases with "length of stay", "postoperative stay" and "colorectal surgery" keywords. This search resulted in 119 articles, 27 articles from them were in the same line with our study objective. Finally, these 27 articles were assessed and their results involved in this study.

Result: Postoperative length of stay is associated with patient related factors such as age and background diseases, surgical related factors like surgery duration and bleeding volume and institutional related factors as Facilities and politics. Postoperative complications like ileus or infection increase the length of stay. Preoperative consultation and education sessions, psychological preparation and minimally invasive surgeries prevent postoperative prolonged stay. For unpreventable factors the only possible measure is informing staff about some special patients' needs and preparing necessary equipment to provide special care to them. Finally, the most effective solution mentioned in literature is enhanced recovery after surgery protocols.

Conclusion: Reducing postoperative complications and hospitalization duration prevents extra costs for the healthcare system and patients. On the other hand, faster patient discharge makes more available capacity for providing more services to more patients. That results in Improving community health and increasing healthcare system revenue.

G-1133

The role of artificial intelligence applications in the treatment and management of complications of chronic diseases Community Verified icon

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Introduction: Since the 21st century, significant advances have been made in the field of artificial intelligence technology, in such a way that this leads to the application of artificial intelligence in various aspects of medicine, including health care. Due to its multifactorial nature, the prevalence of chronic diseases has created a challenge for treatment and healthcare delivery. On the other hand, artificial intelligence applications also show significant potential in improving the quality and care of this category of patients, especially chronic patients.

Method & material: A systematic review was conducted using pubmd, scholar, medline, web of science databases in the period from 2017 to 2022, emphasizing the articles of the last 3 years. 45 articles related to the keywords (prediction model), (artificial intelligence), (diabetes), (liver disease) and their English equivalents were extracted. Finally, by removing 22 articles that had little relation to the topic or were letters to the editor, 23 articles were analyzed for content.

Result: The findings indicated that artificial intelligence has an effective and practical role in disease management. According to the existing studies, artificial intelligence can be very helpful in diagnosing liver fibrosis and non-alcoholic fatty liver disease, helping ophthalmologists to diagnose the type of IRD, as well as choosing specialized medical treatments for the patient, managing diabetes and preventing complications related to the disease.

Also, in heart failure, machine learning (ML) approaches can perform better than conventional methods. In the field of rehabilitation, robotic rehabilitation is generally recommended to improve lower limb function, including walking.

Conclusion: The reviewed studies showed that artificial intelligence can be useful and effective in the management of many diseases and help the medical staff in controlling diseases. Although the adaptation of artificial intelligence to the clinical field brings valuable results by reducing the workload of healthcare workers, improving patient care by providing patient-specific treatment solutions, and generally reducing costs, it should not be considered the only method. Rather, it is better to always overcome with research, analysis and interdisciplinary perspective in search of more effective methods and improvement of these methods.

G-1134

drug addiction and its relationship with poverty; A review article

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Introduction: Drug addiction is one of the basic problems of societies, which has many negative effects on the health and economy of the society. In this review, we investigated the relationship between drug addiction and poverty.

Method & material: In this review study, a search was made in Persian and Latin scientific databases and databases, including Google Scholar, Magiran, SID, Iranmedex, and PubMed, Irandoc, using appropriate keywords. Studies published in Persian and Latin databases with keywords: addiction, poverty, drugs and their Latin equivalents were selected according to the principles of Mesh terms in the period between 2021 and 2023. After reviewing the titles and abstracts and relevant evaluations, 10 studies were selected for review among 35 studies.

Result: The results showed that people who are addicted to drugs are more at risk of poverty. In addition, poverty can be one of the main factors in creating and intensifying drug addiction. Studies have shown that poverty can act as one of the factors causing and intensifying drug addiction due to the lack of financial and social resources.

Conclusion: Drug addiction and poverty have a direct relationship with each other. Poverty can be one of the main factors in creating and intensifying drug addiction. Therefore, it is expected that the policy-making process and measures to alleviate poverty from the communities will be adopted. Also, getting help from government and private organizations to provide livelihood for the poor and poor people of the society.

G-1135

Factors affecting male sex addiction in Iran; A review study

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Introduction: Addiction is one of the problems of today's society that may be faced with different types according to different conditions in different societies. Men are also among the people who may get addicted due to social, cultural or personal experiences. In this article, the factors affecting male addiction in Iran are reviewed.

Method & material: In this review study, a search was made in Persian and Latin scientific databases and databases, including Google Scholar, Magiran, SID, Iranmedex, and PubMed, Irandoc, using suitable keywords. Studies published in Persian and Latin databases with the keywords: factors affecting addiction, addiction, male sex, men, Iran and their Latin equivalents according to the principles of Mesh terms in the time period between 2018 to 2022 were elected. After reviewing the titles and abstracts and relevant evaluations, among the 35 studies, 11 studies were selected for review.

Result: Factors affecting men's addiction in Iran included: individual factors, social factors, economic factors, and physical factors.

1. Individual factors: includes factors such as self-dissatisfaction, lack of self-control, depression and anxiety, personality type, low self-confidence and hyperactivity. 2. Social factors: includes factors such as environment and culture, which include youth culture, family disputes, pressure from spouses and family, poverty, unemployment, and people's sociability. 3. Economic factors: includes factors such as poverty, unemployment, low income, lack of access to economic opportunities and lack of economic facilities. 4. Physical factors: includes factors such as mental illnesses, physical illnesses, chronic illnesses, chronic pain, and lack of satisfaction with physical strength.

Conclusion: According to the studies, the factors affecting men's addiction in Iran include individual, social, economic and physical factors. To reduce the amount of addiction in society, it is necessary to plan and implement programs to manage the aforementioned factors. Among the important actions in this field are social skills training, improving the cultural level of society, creating economic opportunities for people, providing health and treatment services as effective solutions to reduce addiction in society.

G-1136

Prevalence of cardiovascular risk factors among myocardial infarction patients receiving reteplase

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Introduction: Myocardial infarction (MI) is one of the leading causes of disability and mortality in the world. The impact of risk factors such as sex, age, and addiction on prognosis is still debated. More than 50% of MI cases occur in people less than 65 years old. Therefore, this study was conducted to investigate the prevalence of myocardial risk factors in patients with myocardial infarction receiving reteplase. hospitalized in CCU.

Method & material: The current retrospective cross-sectional research was performed from 2017 to 2019, on patients with myocardial infarction, receiving reteplase, admitted to the CCU of Imam Khomeini Hospital in Jiroft city in southern Iran. 278 patients were selected by convenience sampling method. Data were extracted from the patient's medical records. Descriptive statistical analyzes were performed.

Result: We identified 278 patients with myocardial infarction, receiving reteplase admitted to the CCU of Imam Khomeini Hospital in Jiroft city. the prevalence rates of risk factors in patients were as follows: 194 (69.8%) were males, and 84 (30.2%) were females. Most patients are aged between 40 and 65 years. 94 (34.5%) of the patients had a family history of CVDs, 143(51.5%) had diabetes, 150(53.9%) had hypertension, 163(58.6%) had a history of addiction, 75(27%) had a history of coronary artery disease, 7(2.5%) had a history of CABG and 86(31%) had lipid disorders.

Conclusion:our findings indicate a high Prevalence of cardiovascular risk factors among myocardial infarction patients receiving reteplase. Programs to target risk factors including addiction, diabetes, hypertension, and sociodemographic risk factors, are necessary for more effectively addressing health disparities in MI and its adverse consequences.

G-1137

Propolis as a Potential Adjuvant Therapy for Diabetic Foot Ulcers: Promising or Not? A Systematic Review

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Introduction: Diabetic foot ulceration (DFU) is a significant issue of diabetes that could be a potentially life-threatening condition that may lead to amputation if left untreated. Propolis, with its wound-healing, antimicrobial, antioxidant, and anti-inflammatory properties, can aid in collagen production and accelerate the healing of wounds. So, the aim of this study is to review the effect of Propolis as a potential adjuvant therapy for Diabetic Foot Ulcers.

Method & material: This review article was performed within articles published in PubMed, Web of Science, Science Direct, SID, and Cochrane Library databases until June 2023. The keywords were diabetic foot ulcer, propolis, and treatment. By searching these databases; 31 articles were found, 17 of them by reading title and abstract were removed. 14 articles were selected under the inclusion criteria.

Result: Out of 14 articles analyzed, the results consistently showed significant improvement in wound healing when propolis and honey were used together. In the animal model, the combination treatment resulted in better granulation tissue, fibroblast production, re-epithelization, and angiogenesis compared to control groups. Moreover, the healing process was accelerated, with noticeable improvements as early as 3- and 5-days post-injury. In a case study of a female patient with DFU, the use of propolis-enriched Trigona honey led to complete re-epithelialization within two months. Propolis decreased the average wound area and increased connective tissue deposition while affecting glutathione, tumor necrosis factor-alpha, and interleukin levels. Active MMP-9 levels and bacterial counts were also reduced. Alginate hydrogels containing neomycin and propolis were found to be effective as diabetic wound dressings. Propolis with olive oil might be an effective treatment for DFU. No adverse effects related to propolis treatment were reported.

Conclusion:: It seems that propolis may be an interesting therapeutic strategy as an adjuvant in the care of diabetic foot wounds due to its ability to improve and promote healing. However, more research needs to be done on this topic.

G-1138

Effect of Teach Back Training on Improving the Lifestyle of Health Ambassadors

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Introduction: Adopting a healthy lifestyle is one of the important goals of health programs and is necessary to maintain and promote health. The aim of this study was to determine the effect of teach-back method on improving the lifestyle of health ambassadors in Urmia.

Method & material: In this quasi-experimental study, 200 health ambassadors were participated in the study. The research sample was obtained using simple random sampling method. Data collection tool was a questionnaire including demographic characteristics and lifestyle. The educational intervention was performed in 4 sessions of 45 minutes based on the teach-back method. Data were collected through a lifestyle questionnaire before and three months after the educational intervention. Then the data was analyzed through SPSS.

Result: The results showed that 24% of the control group and 28% of the intervention group had a good lifestyle before the educational intervention. After the educational intervention 27% of the control group and 54% of the intervention group were in good lifestyle, the results also showed that the mean score of total lifestyle and all its dimensions in the intervention group increased compared to the control group after the educational intervention and the difference between the mean score of total lifestyle and all its dimensions in the intervention group after the intervention was significant (P 0.05).

Conclusion: According to the results of the study, it is possible to prevent the occurrence and exacerbation of various diseases by modifying the lifestyle of people by of teach-back method education.

G-1139

Nut intake and risk of total, advanced, localized, and fatal prostate cancer: a systematic review and meta-analysis

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Introduction: Data on the association between nut consumption and prostate cancer risk are conflicting. Therefore, this systematic review and dose-response meta-analysis aimed to summarize available findings from observational studies on the associations of nut intake with risk of total, advanced, non-advanced, and fatal prostate cancers.

Method & material: We searched the online databases of PubMed, Scopus, and Web of Science as well as Google Scholar using appropriate keywords to identify eligible articles up to September 2022. In total, 11 articles with a total sample size of 287,786 participants and 32,213 cases of prostate cancer were included in the current systematic review and meta-analysis.

Result: By comparing the highest and lowest intake of total nuts, pooled relative risks (RRs) and 95% confidence intervals (95% CIs) for total, advanced, non-advanced, and fatal prostate cancers were 0.94 (95% CI: 0.85-1.04, P=0.22), 1.10 (95% CI: 0.98-1.24, P=0.12), 0.97 (95% CI: 0.85-1.11, P= 0.69), 0.97 (95% CI: 0.79-1.18, P=0.73), respectively, which indicated non-significant inverse associations for total, non-advanced, and fatal prostate cancers and a non-significant positive association for advanced prostate cancer. In the dose-response analyses, we found no evidence of a linear or non-linear association between total nut intake and prostate cancer risk. Data on other types of nuts including walnut, tree nuts, peanut, and peanut butter were not sufficient for performing a meta-analysis.

Conclusion: We found no significant association between nut intake and risk of total, advanced, non-advanced, and fatal prostate cancer. Further studies are required to confirm our findings.

G-1140

The study of the artificial intelligence role in the diagnosis of vertical root fractures: a systematic review

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Introduction: Artificial intelligence is one of the newly developing technologies which is very accepted in dentistry. Diagnosing vertical root fractures in prevalent methods is accompanied by errors that have been minimized with the introduction of artificial intelligence. Therefore, the current study was conducted with the aim of investigating the role of artificial intelligence in the diagnosis of a vertical fracture in the form of a systematic review.

Method & material: This study follows the PRISMA guidelines in order to investigate the role of artificial intelligence in the diagnosis of vertical root fractures. For this purpose, PubMed, Scopus, and Web of Science databases were searched to retrieve English articles without time limitation until March 17, 2023. The search strategy included the concepts of Artificial intelligence, and vertical root fracture and their synonyms. The criteria for entering the study were original and English-language articles that were conducted in order to investigate the role of artificial intelligence in the field of vertical root fracture diagnosis. After selecting the studies, according to the inclusion and exclusion criteria, data collection was done using the data extraction form based on the study objectives. Data analysis was done through the content analysis method.

Result: In the initial review of 3 databases, 63 articles were retrieved and entered into Endnote software. After removing duplicates and unrelated ones based on evaluation of the title and abstract and full text, 2 articles remained. After reviewing the sources of the input studies, one more related study was found and finally, 3 articles were included in the present study. Studies have found that artificial intelligence has high accuracy and sensitivity in detecting vertical fractures. These studies were conducted in Iran, China, and Japan. The imaging methods used were CBCT, Panoramic, and jointly preapical and CBCT. SPSS and Python software were used in 33%, MATLAB was used in 33% and J Software and DIGITS Version 5.0 were used in 33% of studies.

Conclusion: The review of studies showed the high accuracy and sensitivity of artificial intelligence in the diagnosis of vertical root fractures, but due to the lack of studies in this field, further studies are recommended.

G-1142

The impact of climate change on the epidemiology and transmission of bacterial infectious disease: A systematic review

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Introduction: Climate change has altered epidemiology and bacterial infections transmission during the last two centuries. This field has seen many investigations with varied findings. This study examines how climate change affects bacterial disease epidemiology and transmission.

Method & material: The methodology employed in this study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A comprehensive search was conducted across several databases, including PubMed, Google Scholar, Scopus, Cochrane, and Web of Science, from inception to April 15, 2023. The inclusion criteria were strictly followed to select studies of high quality. Only English-language studies were considered, and two authors independently extracted the study features and statistics, which were then cross-checked by another author. The quality of the studies was evaluated using the CASP Systematic Review Checklist (ROBIS) appraisal instrument.

Result: The current investigation included a review of data from 76 studies. Climate change has a major impact on the incidence and transmission of numerous bacterial infectious diseases, according to the findings of this review. Climate change influences pathogen survival, reproduction, and distribution, as well as the behavior and immunity of hosts such as humans and animals. Climate change also has an impact on the occurrence and severity of extreme weather events such as floods and droughts, which can disrupt health systems and raise the risk of outbreaks. Climate change is anticipated to have an impact on diseases such as Lyme disease, West Nile virus disease, anthrax, salmonellosis, vibriosis, and plague. The impact of climate change on various diseases differs based on their geographical location, pathogen type, and mechanism of transmission. Furthermore, climate change is anticipated to increase the burden of bacterial infectious diseases in many parts of the world.

Conclusion: Climate change increases bacterial transmission and infection risk. More multicenter research may help lessen climate change's impact on bacterial disease epidemiology.

G-1143

The association between macronutrient quality index (MQI) and the prevalence of metabolic syndrome among the staff of Mashhad University of Medical Sciences

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Introduction: The prevalence of MetS has increased worldwide in recent decades and has reached an alarming level. Lifestyle modification, medications and diet therapy are ways to control and manage metabolic syndrome. The macronutrient quality index is a method to evaluate the relationship between diet quality and chronic disease. Diet quality can be determined by examining the balance between macronutrient and micronutrient intake, especially the proportion of macronutrients that provide energy.

Method & material: This cross-sectional study was conducted using data from the Mashhad Persian cohort study. 7431 people were included in the study. The macronutrient quality index was defined by summing three sub-indices: Carbohydrate Quality Index (CQI), Fat Quality Index (FQI), and Healthy Plate Protein Source Quality Index (HPPQI), MQI=CQI+FQI+HPPQI.

Metabolic syndrome was defined as the presence of all 3 of the 5 factors of abdominal obesity, hyperglycemia, hypertriglyceridemia, hypercholesterolemia, and hypertension according to the joint interim statement. Then the relationship between MetS (and its components) and MQI was measured using SPSS software.

Result: Participants in the top quartile of MQI had significantly different intakes of some food groups and nutrients compared with the first quartile. In the crude model the odds of Mets were lower in the highest quartile of MQI compared to the lowest one (P-trend 0.001). Moreover, in the model that was adjusted for age, sex, physical activity and energy, participants with the highest adherence to MQI showed an odds ratio of (OR: 0.595, 95% CI: 0.475-0.746) in comparison to those with the lowest adherence for MetS incidence, Also, we observed such a trend in the full adjusted models (OR: 0.597, 95% CI: 0.476-0.749).

Conclusion: In the population of Mashhad city, a significant relationship was seen between the quality score of dietary macronutrients (MQI) and the chance of developing metabolic syndrome. Individuals with a higher macronutrient quality score were less likely to have metabolic syndrome.

G-1144

The best model for predicting Acute Coronary Syndrome

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Introduction: Prodromal symptoms are warnings of imminent acute coronary syndrome (ACS). The presence of a predictive model for ACS can play an important role in screening high-risk individuals. The aim of this study was to investigate a model that can screen ACS with higher sensitivity and specificity.

Method & material: This retrospective methodological study was performed in heart disease referral center of Ardabil province in Iran. Sampling was done by Convenience Sampling. Participants included a group of patients with a definite diagnosis of ACS (n = 150) and a low-risk group without ACS (n = 143). Demographic Information Questionnaire and Acute Coronary Syndrome Prediction Scale were used to collect data. The factor structure, sensitivity, specificity, cut-off point and internal consistency of 35 prodromal symptoms of ACS were examined in the form of 3 models of 35 items, 23 items and 10 items. LISREL 8.8 and SPSS version 15 software were used for analysis.

Result: The sensitivity (specificity) of the 35-item, 23-item and 10-item models were 0.74 (0.59), 0.80 (0.62) and 0.76 (0.75), respectively; Cronbach's alpha coefficients ranged from 0.50-0.84, 0.27-0.79 and 0.63-0.68, respectively, and the best cut-off points were 54.5, 29.5 and 5.5.

Conclusion: The present study showed that multidimensional models are not suitable for predicting ACS. This can be due to the difference in the innervation of myocardium and ambiguous nature of the ACS prodromal symptoms. Among the three models the 10-item model is the most appropriate model for predicting ACS in high-risk individuals due to the lower number of questions, higher sensitivity and specificity, and better differential power.

G-1145

What Affecting Adherence to Physical Activity in Patients with Heart Failure: A Qualitative Study

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Introduction: Heart failure (HF) is becoming one of the important healthcare problems around the world. Physical activity as the foundation of the cardiac rehabilitation program is poorly adhered by patients with heart failure. This study aimed to understand the experiences of patients with HF in terms of adherence to physical activity.

Method & material: This study was conducted using conventional qualitative content analysis. Data were collected with semi-structured interviews with twenty-five Heart failure patients through open-ended questions. Data were analyzed using Max-QDA10 and Data analysis was continuous, comparative and simultaneous with data collection.

Result: After data analysis, three main categories were identified: 1) patient-related barriers and facilitators 2) support system-related barriers and facilitators 3) environmental barriers and facilitators. These categories were subdivided into two main themes: 1) threatening disease 2) challenging disease.

Conclusion: The results showed that beyond the patient-related, the support system-related and environmental categories, perceiving the disease as a challenge or a threat is crucial in the activity of patients with HF. Nurses and other healthcare providers can train problem-solving behaviors to patients with HF in order to improve their physical and mental well-being. It is suggested that theoretical-behavioral approaches be used in future clinical trials to improve adherence to physical activity.

G-1146

Dietary intake of lycopene, blood levels of lycopene, and risk of total and specific cancers in adults: a systematic review and dose–response meta–analysis of prospective cohort studies

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Introduction: Data on the association between lycopene intake and cancer risk are conflicting. Therefore, this systematic review and dose-response meta-analysis aimed to summarize available findings from prospective studies on the associations of lycopene intake with risk of overall and specific types of cancer and its mortality.
Method & material: We searched the online databases of PubMed, Scopus, and Web of Science as well as Google Scholar using appropriate keywords to identify eligible articles up to April 2023. In total, 46 articles were included in the current systematic review and meta-analysis.
Result: By comparing the highest and lowest intake of lycopene, pooled relative risks (RRs) and 95% confidence intervals (95% CIs) for overall and lung cancer risk were 0.95 (95% CI: 0.92-0.99, P=0.02) and 0.86 (95% CI: 0.75-0.98, P=0.02), respectively, which indicated significant inverse associations. In the linear dose-response analysis, a significant inverse association was found for prostate cancer risk by a 10-mg/d increase in lycopene intake. In the non-linear analysis a U-shaped non-linear relation was observed for lung cancer risk and overall cancer mortality.
Conclusion: Our findings support the protective association between lycopene intake and risk of cancer and its mortality.

G-1147

Protective role of ellagic acid on MDA, CAR, and SOD against fluoxetine in male rats with liver damage

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Introduction: Fluoxetine (FXN) is considered as an antidepressant drug which can cause liver injury. Ellagic acid (EA) as an antioxidant could be used in healing liver damage. This study aimed to evaluate the protective effect of EA against FXN-induced renal damage by considering MDA, CAT and SOD changes.
Method & material: In this animal stud sixty-four adult Wistar rats weighing (200±20g) were randomly assigned into three experimental group. Group (1) control, Group (2) FXN 15 mg/kg, and Group (3) FXN 15 mg/kg + EA 50 mg/kg. The entire blood samples were taken through heart and serum and tissue parameters of the oxidative stress were examined. Data were analyzed by SPSS software, and a P-value of 0.05 was considered statistically significant.
Result: There was significant difference in serum and liver MDA, CAT, and SOD levels (P 0.05) between the control and groups which treated by FXN. Following therapy, Ellagic acid caused a significant decrease in serum MDA level and boosted the levels of CAT and SOD significantly.
Conclusion:: Our study concluded the beneficial effects of EA on oxidative stress and FXN liver toxicity.

G-1148

Developments, application and performance of artificial intelligence in early cancer diagnosis

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Introduction: Artificial intelligence, due to its ability to process large amounts of data and find hidden connections between variables, through medical imaging analysis; It is considered as a reliable assistant for early diagnosis of cancer.

The probability of timely cancer treatment increases with the early detection of neoplasias and abnormal cells. It should also be noted; Artificial intelligence algorithms may improve the diagnostic accuracy that can only be achieved by radiologists, and there is no longer a concern in terms of a shortage of expert radiologists. Therefore, this article intends to report on the use and performance of artificial intelligence in the diagnosis and prediction of cancer occurrence.

Method & material: In this study, an efficient search in the PubMed, Scopus, Scholar, Web of Science, Elsevier databases to find articles published in the period from 2018 to 2022 with the keywords (artificial intelligence), (machine learning), (cancer screening)), (prevention) and their English equivalent were done and from the 50 searched articles, studies that were in the form of a letter to the editor, only the availability of the abstract and lack of relevance to the subject were excluded; Finally, 25 articles based on artificial intelligence for cancer prediction and diagnosis were analyzed.

Result: The findings showed that artificial intelligence has played an effective role in the early diagnosis of cancer in many cases, except in a few cases such as breast cancer where the accuracy of radiologists is more than artificial intelligence. Also, in some cases, the integration of artificial intelligence as an aid for the diagnosis of colorectal neoplasia leads to a significant increase in the diagnosis of this disease. In cases such as detecting the number of larger adenomas, colonoscopy with artificial intelligence was not found to be significantly different compared to colonoscopy without artificial intelligence, while colonoscopy with artificial intelligence was found to be more effective for smaller adenomas.

Conclusion: The results of the studies indicated that, in general, artificial intelligence has an effective function in diagnosing a wide range of types of cancer, except in a few cases, which could be due to the lack of prospective studies in that field or the poor methodological quality of those studies. In some cases, the combination of artificial intelligence with common methods also had a positive effect. It seems that more prospective studies are needed to measure the effect of artificial intelligence in clinical practice.

G-1149

The Effect of Myoinositol on Lipid Profile and Oxidative Stress Markers in Type 2 Diabetic Rats

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Introduction: Myoinositol is an antioxidant from the vitamin B subgroup, which modulates the function of metabolic enzymes through the secondary messenger system and increases insulin sensitivity. Since increase in blood cholesterol and oxidative stress as well as disturbance in the antioxidant enzymes are the characteristics of diabetes, the aim of this study is to investigate the effect of Myoinositol as an antioxidant, on lipid factors including total cholesterol, triglycerides, LDL-c as well as oxidative stress factors including malondialdehyde (MDA) and total antioxidant capacity (TAC) in diabetic rats.
Method & material: Male Wistar rats (n=18) were randomly divided into three groups, including control, diabetic (single intraperitoneal injection of streptozotocin (65 mg/kg bw) and nicotinamide (110 mg/kg bw)) and diabetic +Myoinositol (300 mg/kgbw/day of myoinositol through gavage for 8 weeks). At the end of the treatment period, blood samples were taken from all groups and the serum level of lipid factors including total cholesterol and LDL-c were measured using the relevant kits. In order to measure oxidative stress factors, including the level of lipid peroxidation malondialdehyde (MDA), the fluorometric method was used, and the total antioxidant capacity (TAC) was evaluated based on the ferric ion reduction method by the antioxidant power using the FRAP method. Data were analyzed using ONE WAY ANOVA and Tukey's test, and were considered significantly different at p0.05.
Result:A significant increase in the level of total cholesterol ($p<0.001$), LDL-c ($p<0.001$), MDA ($p<0.001$) and a significant decrease in TAC level ($p<0.01$) were observed in the diabetic group compared to the control group. Whereas in the myoinositol group, a significant decrease in the total cholesterol ($p<0.001$), LDL-c ($p<0.001$), MDA ($p<0.01$) and a significant increase in TAC ($p<0.01$) was observed compared to the diabetic group.
Conclusion:A significant increase in the level of total cholesterol ($p<0.001$), LDL-c ($p<0.001$), MDA ($p<0.001$) and a significant decrease in TAC level ($p<0.01$) were observed in the diabetic group compared to the control group. Whereas in the myoinositol group, a significant decrease in the total cholesterol ($p<0.001$), LDL-c ($p<0.001$), MDA ($p<0.01$) and a significant increase in TAC ($p<0.01$) was observed compared to the diabetic group.

G-1150

Interferon lambda as a diagnostic biomarker and novel drug for COVID-19: a systematic review

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Introduction:COVID-19 which caused by enveloped and positive-sense RNA viruses, was first identified in Wuhan, China in December 2019 and was regarded as pandemic by WHO in March 2020. This complicated virus induces heterogeneous symptoms like fever, severe pneumonia, heart failure even lethal forms. These symptoms could be caused by immunologic reactions ranging from molecular changes such as cytokine storm to cellular changes like lymphopenia. As said cytokines changing is a component of immunologic reactions that affects sickness period and disease severity hence in recent researches have demonstrated that IFN-λ, the newly discovered interferon, might effect on severity of COVID-19. In this study, we attempted to discover whether IFN-λ can be used as a diagnostic biomarker and novel drug for COVID-19 patients or not?!

Method & material: We systematically searched PubMed, Scopus and CENTRAL databases for all the articles about effects of IFN-λ on worsening or treating of COVID-19 patients. 564 records were found and scanned by NG and AH, eventually the differences were investigated based on the eligible criteria by ASD. Ultimately 35 records were selected for perusing full-text of manuscripts, as a result, 21 articles were used for data synthesis.

Result: Articles were studied in four groups: A-IFN-λ gene expression B-plasma IFN-λ C-IFN-λ perfusion D-treatment. In groupA (Nine articles), six studies (subgroup1) compared severe and not-severe patients, two (subgroup2) compared not-severe patients with healthy controls and, one (subgroup3) compared severe patients and healthy controls. Five records from subgroup1 showed gene expression was higher in not-severe patients although one record showed no significant change. All records in subgroup2 indicated higher gene expression in not-severe patients and the record in subgroup3 showed no difference in gene expression. In articles of groupB (six records), four records represented higher IFN-λ in not-severe than severe patients, in two records opposite outcomes were observed. Articles in groupC (five records) indicated positive effect of pegylated IFN-λ for modulating of severity of COVID-19 by measuring hospitalization and death. In the only study of groupD, plasma IFN-λ was measured in convalescent patients which illustrated positive effect in treatment.

Conclusion: In this review, the reverse correlation of IFN-λ level with severity of COVID-19 and affirmative influence of this cytokine in treatment were revealed. As a result, it is recommended that health workers utilize this factor as a diagnostic biomarker and an alternative drug for COVID-19.

G-1151

A systematic review on providing new methods to control the challenge of hospital waste (especially Covid-19)

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Introduction: In recent decades, waste management has become one of the basic and important challenges in the field of health and environment in many countries. Due to the increase in the number of hospitals and medical centers as well as the increase in the consumption of medical drugs, waste management in hospitals has become one of the biggest challenges. Also, the spread of the Covid-19 disease has caused the amount of waste production in hospitals to increase and lead to serious problems in waste management and its effects on the health of hospital employees.

Method & material: In this systematic review article, using the PRISMA method, in prestigious journals such as Iran Medex, Iran Doc, PubMed, World Health Organization scientific information database, science direct, Google Scholar and SID were reviewed. In this study, the challenges of waste management in hospitals during the Covid-19 era are examined and appropriate solutions are provided to control them.

Result: The results of this study show that the challenges of waste management in hospitals have increased during the Covid-19 era. Some of these challenges include the lack of proper plans for waste collection and disposal, the lack of proper equipment and tools for waste management, the existence of problems in waste collection and disposal in areas with special weather conditions, the lack of ability to separate medical and non-medical waste, and the lack of programs Training for hospital personnel.

Conclusion: To manage waste in hospitals in the era of Covid-19, solutions such as the use of smart waste collection systems can be used. These systems identify and collect hospital waste using smart sensors. These systems use technologies such as barcode readers, RFID, and CCTV cameras to identify hospital waste and carry out the collection process. The use of smart waste collection systems can reduce the consumption of hospital waste and reduce waste disposal costs. Also, it can reduce the time required for waste collection and improve the quality of medical services and improve the environment.

G-1152

A systematic review of the waste management of medical centers in the covid-19 disease (challenges, solutions)

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Introduction: Considering the high importance of proper control and management of hospital wastes related to Covid-19, it is necessary to have comprehensive information about the management status of these wastes. Therefore, the aim of the current study is to systematically review the management (challenges and solutions) of Covid-19 waste in medical centers.

Method & material: The information needed to conduct this systematic review by searching the keywords Healthcare waste, Medical Waste, Hospital Waste, Waste management, Infectious waste, Covid-19, Coronavirus, from PubMed, Scopus, EMBASE, Web of Science databases. , manual search of journals, reference check has been collected in the period of 2019 to 2021. The report quality of all the articles after extracting them from the desired databases using the mentioned keywords were evaluated by two evaluators using the checklist (STROBE).

Result: Finally, among the articles found from the sources, articles that corresponded to the desired topic were included in the study. The results of the articles extracted in 4 areas: education and management, collection and transportation, temporary storage and decontamination and Waste disposal was classified. The results of the present study showed that waste management in the field of decontamination and waste disposal were significantly appropriate, but the countries' performance in the field of education and separation, transportation and temporary storage were not in good conditions.

Conclusion: According to the results of the present study, the performance of different countries in the field of infectious waste management of patients suffering from covid-19 has a significant gap with the standards and there are many challenges in this field. It seems that it is necessary to formulate and implement interventions to improve the process in order to improve the existing conditions.

G-1153

A review of patient building syndrome in hospitals and medical centers in the years 2010 to 2022

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Introduction: Sick building syndrome is a medical condition in which people, spending time in the interior of a building, develop symptoms and signs of illness for no apparent reason. By spending more time in the building and over time, these symptoms sometimes increase, and by leaving the building for a long time, the symptoms disappear by themselves.The most common symptoms of this syndrome are fatigue, drowsiness, nausea, dizziness, eye, throat and nose irritation. The purpose of this study is to investigate the frequency of symptoms of this syndrome and some factors related to it in the employees of hospitals and medical centers.
Method & material: In this study, all the articles available in internal and external databases such as PubMed, Scopus, Web of science, Irandoc, IranMedex,World Health Organization scientific database, science direct, Google Scholar and SID were examined. The keywords of sick building syndrome, indoor environment quality, noise, environmental ergonomics and employee health were used for searching. Finally, among the articles found from the sources, the articles that matched the topic were included in the study.
Result: Considering the average ratings, the symptoms of fatigue (47.4), muscle pain (47.5), headache (5.47) and high stress (14.6) and poor concentration (7.45), along with some Defined parameters for each of the factors, including overcrowding and lack of speech privacy (12.78 percent); the noise of people's conversation (93.62 percent); Inappropriate temperature of the working environment in winter (59.58 percent) and summer (91.49 percent), improper placement of utilities and not allocating enough space for people and equipment (91.49 percent); They played the most important role.
Conclusion: Human exposure to various types of environmental pollution such as fungi, bio aerosols, bacteria, and allergens causes various harmful effects on health, causing various diseases such as respiratory problems, eye, nose, and throat irritation, infection, skin sensitivity that cause disturbances in general conditions. The body becomes, results. The results showed that the inefficient design of the environment and non-observance of ergonomic principles as a result of unprincipled renovations regardless of the nature of the work and its requirements, inappropriate placement of users, non-standard density of employees in an inflexible environment, lack of speech privacy and crowding were identified as the most important reasons for the occurrence of symptoms. The most important factors in causing SBS complications are high temperature fluctuations and the feeling of unpleasant smell, which is related to the lack of proper air conditioning system for relative temperature control in the hospital.

G-1154

Pathogenic and health effects of methyl tertiary butyl ether (gasoline additive): a systematic review

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Introduction: Methyl Tertiary Butyl Ether is a chemical compound added to gasoline that is used in unleaded gasoline in many countries of the world today. This substance enters the environment in different ways due to production, transportation, maintenance, application and use. This compound has a high solubility in water and a low tendency to absorb and remain in the soil, so it is easily displaced by dissolving in water and causes surface and underground water pollution. In general, the problems caused by this substance in water include low taste and smell threshold, rapid penetration into underground water sources, problems of removal, purification and health risks. Also, this compound has been classified by IARC as (probably carcinogenic to humans) in group C of carcinogenic compounds.
Method & material: In this study, all the articles available in internal and external databases such as PubMed, Scopus, Web of Science, Irandoc, IranMedex, World Health Organization scientific information database, science direct, Google Scholar and SID were examined. To search, the key words methyl tertiary butyl ether, surface and underground waters were used. Finally, among the articles found from the sources, the articles that matched the topic were included in the study. In the final step, the quality of extracted articles was evaluated according to the type of study using PRISMA checklists.
Result: Due to the effects of MTBE in many countries where this substance is used, environmental monitoring and determination of the concentration of this compound in air, soil, and water are done. These tests are important in order to control and prevent the entry of these compounds into the environment, especially in water environments. Therefore, considering the very high volume of gasoline consumption in our dear country, it is necessary to take similar measures to monitor and control these compounds.
Conclusion: Available documents and evidence indicate that MTBE is not a nontoxic compound. Many in vivo and in vitro studies in mammals and non-mammalians have been conducted to elucidate the mutagenic properties of MTBE. Except for one case, all these studies have had negative results. A case study that has a positive result may be related to the formation of formaldehyde as a result of microsomal metabolism. These studies show that MTBE's mechanism of action is most likely non-genotoxic. In addition to economic benefits, this will prevent environmental pollution, especially air and water pollution. It can help in this regard.

G-1155

The Role of miRNAs in the Treatment Efficacy of Tamoxifen in Breast Cancer Patients: A Systematic Review

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Introduction: Breast cancer is one of the leading causes of death in women. In Iran, the incidence of this disease is increasing every year. Tamoxifen has been used in many patients; however, resistance to tamoxifen is often encountered. Some patients have shown poor responses to initial therapy. changes in the expression of miRNAs are effective in drug resistance. This systematic review study, investigated the miRNAs that are effective in the treatment efficacy of tamoxifen.

Method & material: The present study follows the PRISMA instructions. Web of Science, PubMed, and Scopus databases were searched to retrieve English articles. Searches were conducted up to September 11, 2022. The search strategy included the terms "Tamoxifen", "Breast neoplasm", and "Micro RNA". The inclusion criteria of this study are English, original, and experimental studies which investigated miRNAs that are effective in the treatment efficacy of tamoxifen. After selecting the studies according to the inclusion criteria, data was collected using the data extraction form based on the objectives of the study. Then the data was analyzed through the content analysis method.

Result:565 articles were retrieved and imported into the Endnote reference management software. In the end, 75 studies met our inclusion criteria. In this systematic review study, 105 miRNAs were investigated, of which 44 miRNAs have a positive effect and 47 miRNAs have a negative effect on the treatment efficacy of tamoxifen. 14 miRNAs have a controversial effect which means some studies showed a positive effect and some studies showed negative effect. The most studied miRNAs with a positive effect are Mir-342, 135a, 27a, 200a, 200b, 200c, and 146a. The most studied miRNAs with a negative effect are Mir- 9-5p, 221, 10a, 181b, 181a, 551b, 519a, 409-3p, and 455-3p. MiRNAs with controversial effects are Mir101, let-7c, let-7e, 222, 29a, 23b-3p, 22, 27b-3p, 486, 489, 205, 125-5p, 21, and 375.

Conclusion: Although the actual mechanism of tamoxifen resistance remains unclear and more studies should be conducted to understand the molecular basis, miRNAs with negative effect can be a therapeutic target to overcome tamoxifen resistance, and restoring the expression of miRNAs with a positive effect may represent a novel therapeutic approach for sensitizing cancer cells to tamoxifen.

G-1156

Preparation and Intestinal permeability studies on Valsartan Nano-emulsions and Solid Lipid Nanoparticles

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Introduction: Cardiovascular diseases are one of the leading causes of death in different parts of the world. Hypertension, sometimes called arterial hypertension, is a chronic condition in which the blood pressure in the arteries rises. Angiotensin II receptor blockers are mainly used for treatment of CVD. Valsartan is a class III ARB drug for reducing BP. In this study, single-pass intestinal perfusion (SPIP) technique was used for investigating the intestinal permeability of Valsartan. The aim of this study was to increase intestinal permeability of valsartan loaded in Nano-emulsions and solid Lipid Nanoparticles.
Method & material:SPIP was performed in isolated jejunal segments at three Formulation of Valsartan (PEGylated SLN, Non- PEGylated SLN, and Nanoemulsion) to compare intestinal permeability changes against of simple solution of Valsartan. Phenol red was used as a non-absorbable marker. Stability studies were conducted to ensure that the loss of Valsartan could be attributed to intestinal absorption. Outlet samples were analyzed using the developed HPLC method and effective permeability values were calculated by respected formula.
Result: The effective permeability value of Valsartan simple solution in the jejunum was 4.129×10^(-3). Also, the effective permeability values of PEGylated and Non- PEGylated SLNs and Valsartan Nano emulsion were found to be 1.7119×10^(-2) , 1.442×10^(-2), and 1.299×10^(-2) cm/sec. The use of nanoparticle formulations led to a significant increase in intestinal permeability of Valsartan.
Conclusion: In conclusion, Valsartan can be absorbed only 23% in the intestine. The high aqueous solubility of Valsartan might be a crucial factor for its poor bioavailability. New techniques have shown that the use of nanoparticles like SLNs and nanoemulsions can dramatically increase intestinal permeability.

G-1157

Evaluation of the anti-tumor effects of Falcaria vulgaris extract in the mouse model of breast cancer

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Introduction: Breast cancer is one of the most common diseases in women, and identifying novel anti-tumor compounds is an important priority in treating this deadly cancer. Falcaria vulgaris (Apiaceae) grows in different parts of Iran and is used for wound healing, gastric ulcers, and some other diseases. Many of its effects are attributed to the presence of coumarins and flavonoids. Furthermore, previous studies revealed that the compounds found in the Apiaceae family possess cytotoxic activity. Hence, there is a rationale to use these compounds in cancer treatment. The aim of this study was to investigate the anti-tumor effects of F. vulgaris extract on the process of tumor development in the mouse model of breast cancer.
Method & material: Female BALB/c mice at 6–7 weeks of age were subjected to the subcutaneous injection with 1×106 viable 4T1 cells. The extracts of aerial parts of F. vulgaris were prepared using Clevenger and Soxhlet apparatus. Studies were performed in four different groups to evaluate the effects of low doses (10 mg/kg) and high doses (20 mg/kg) of this plant extract. Tissues were collected after 28 days and subsequently tested by qRT-PCR, and analyzed by H&E staining.
Result: The results of the study showed that a high dose of F. vulgaris extracts significantly inhibited tumor growth and reduced tumor size and volume in the animal model of breast cancer (p0.01). Some of these effects are caused by altered expression of cancer-related genes through inhibition of cell proliferation and the induction of apoptosis genes.
Conclusion: This study provides evidence that F. vulgaris extract inhibits the proliferation of breast cancer through an apoptosis-dependent pathway. Thus, possibly suggesting a natural resource for future bio-guided isolation of potential antitumor agents.

G-1158

Survey of knowledge, attitude, risk perception and practice of the elderly about Covid-19

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Introduction: The elderly are one of the most at risk groups, and according to epidemiologists, age is the most important factor in reducing COVID-19 survival, especially after 65 years One of the strategies of governments around the world is to target the elderly and try to persuade them to follow public health precautions Covid - 19 disease affects all age groups, especially the elderly the present study aimed to investigate the knowledge, attitude Understanding the risk and practice of the elderly regarding Covid-19 was performed in Urmia.

Method & material: The present study was a cross-sectional study that was performed on 1400 elderly people in Urmia, Iran in 1996 by simple random sampling. The data collection tool in this study was a questionnaire that included demographic characteristics, knowledge, attitude, risk perception and performance questionnaire. Data were analyzed using ANOVA and logistic regression tests.

Result: The mean age of the elderly was 66.6 ± 4.97 years. 67% of seniors had knowledge, 65% had attitude, 52% had performance and 60% had risk perception of Covid-19. Knowledge about Covid-19 was significantly associated with gender and marital status and having a chronic illness, attitude toward gender and having a chronic illness, risk perception with age and education and having a chronic illness, behavior with age, gender, marital status and having a chronic illness (05/0 p). Also, logistic regression test showed that the predictive constructs of masking the elderly were risk perception (wald = 20.17), attitude (wald = 18.14), and awareness (wald = 13.58), respectively. And these predictors were statistically significant. (P 0/05).

Conclusion: It is suggested that careful educational planning for the elderly be done based on the constructs of knowledge, attitude, risk perception that were strong predictors of Covid-19 prevention behavior.

G-1159

Anticandida effects of ferula assa foetida plant gum resin against candida dubliniensis, candida glabrata and candida parapsilosis in-vitro

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Introduction: Candida dubliniensis is a recently identified opportunistic yeast pathogen associated with oral candidiasis, particularly in HIV-infected individuals and AIDS patients. Candida glabrata is a commensal yeast living on human mucosal surfaces but can easily turn into a pathogen. Candida parapsilosis is one of the common causes of yeast infections after Candida albicans. The medicinal organ of the Ferula assa foetida plant is a resinous gum obtained by cutting the upper parts of the root, and resin, essential oil and gum, ferulic acid, and disulfide compounds are among the effective ingredients of this plant that can have a positive effect on the oral mucosa.
Method & material: In the present study, the anti-candidacy effect of aqueous extract and ethanolic extract of the gum resin of the Ferula assa foetida plant was investigated using the well diffusion method and qualitative method. Also, a serial dilution test was used to obtain quantitative results of minimum growth inhibition concentration (MIC) and minimum fungicidal concentration (MFC). Nystatin drug was also used as a positive control. The studied strains were: Candida glabrata (ATCC = 90030) / Candida dubliniensis (ATCC = CD60) / Candida parapsilosis (ATCC = 22019).
Result: Based on the results obtained in the qualitative test, the ethanolic extract of the Ferula assa foetida plant showed a stronger inhibitory effect against the strains of Candida dubliniensis, Candida parapsilosis, and Candida glabrata than the nystatin control, and it was statistically significant. MIC and MFC obtained in the ethanolic extract of Ferula assa foetida respectively for Candida dubliniensis (MIC = 440, MFC = 880 mg/ml), Candida parapsilosis (MIC = 880, MFC = 1760 mg/ml) and Candida glabrata (MIC = 440, MFC = 880 mg/ml). In the aqueous extract, respectively, for Candida dubliniensis (MFC=1900 mg/ml - MIC=950 mg/ml), Candida parapsilosis (MFC=1900 mg/ml - MIC=950 mg/ml) and Candida glabrata (MFC=1900 mg/ml - MIC=950 mg/ml).
Conclusion: According to the results of the present study, the ethanolic extract of the gum of the Ferula assa foetida plant is a suitable option against non-albicans Candida species. The anti-candidacy power of the aqueous extract was the same in all investigated species

G-1160

Relationship between work-related musculoskeletal Disorders and work ability in Employees of Imam Ali Hospital in Zahedan in 2017

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Introduction: Hospital Employees are considered to be the frontline healthcare professionals with prolonged hours of caring for ailing as well as critically ill patients. This highly demanding work pattern can lead them to experience Work-related Musculoskeletal Disorder (WRMSD) and thus makes it important to study its prevalence and its impact on workability. This study aims to determine the work-related musculoskeletal Disorders and relationship with work ability in Employees of a Selected Hospital in Zahedan.

Method & material: This, cross-sectional study was conducted in a hospitals in Zahedan among 200 employee of morning shift in 2017. Before conducting the study, the aims of the study were explained to the employees and their consent was obtained to participate in the study. Demographic information such as age, sex, etc. were collected by the questionnaire. Those who had musculoskeletal problems due to a certain accident or disease were not included in the study. To determine the work ability index, a standard questionnaire was used. To assess musculoskeletal disorders, the Cornell musculoskeletal discomfort questionnaire was used. The results of the study were described and analyzed by the spss version 19.

Result: Hospital employees including 95 nurses, 18 nursing assistants, 20 patient transfer personnel, and 61 hospital cleaners were studied. Most of participants were female (67.5%) and 75.3% aged less than 40 years. Half of personnel were university graduates, 43.8% were overweight or obese, and 68.1% had worked for less than 10 years. The WAI categorize were 6.2% in poor, 7.22 in moderate, 34.5 in good and 40.2 in excellent levels. The highest complaints of pain were related to the lower back region (53.1%), followed by the knee and neck (43.2% and 35.1%, respectively). There was an inverse and significant relationship between work ability and pain score (P0.001).

Conclusion: In this study, the average work ability of hospital staff was in good range. There was a significant negative correlation between work ability and the severity of musculoskeletal disorders. Therefore, it is recommended that the risk factors for musculoskeletal disorders be identified and evaluated and workstations and workplace conditions be revised.

G-1162

Single-Cell RNA Sequencing Reveals Insights into COVID-19 Patient Heterogeneity: Pre-Processing Steps Using 10x Genomics and ScanPy on the Galaxy Platform

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Introduction:COVID-19 caused by the SARS-CoV-2 virus has affected millions of people and continues to pose a threat. To better understand stochastic biological processes and the role of gene expression in promoting beneficial or harmful states, a precise understanding of transcriptome in individual cells is essential. Single-cell RNA sequencing is a powerful tool that can reveal multiple features of COVID-19 patients with different disease severity, including cell populations with proportional alteration, COVID-19-induced genes and pathways, and SARS-CoV-2 infection in single cells. The 10x Genomics platform allows for simultaneous gene expression analysis and identification of receptor chain combinations in cells of the adaptive immune system. The Galaxy Platform is a web-based platform that provides a sustainable high-performance computing environment for users to run flexible analyses on a 10x platform. ScanPy, a replacement for numerous scRNA-seq packages was one of the first packages to support Genomics 10x implemented on the Galaxy platform.
Method & material: In this study, we extracted a dataset of peripheral blood mononuclear cells from 173 COVID-19 patients and healthy controls from the GEO database and applied various pre-processing steps with the ScanPy toolset in Galaxy. These steps included quality control, filtering of low-quality cells, normalization and scaling, feature selection to determine heterogeneity, and data scaling.
Result: We filtered out problematic cells according to common QC criteria, removed systematic differences in sequencing coverage between cells, characterized heterogeneity across cells, and removed genes with random noise while keeping genes containing useful information about the biology of the system. We also removed unwanted sources of variation in the total counts per cell and the percentage of mitochondrial genes expressed. By pre-processing single-cell data from Genomics 10x using the ScanPy toolset and performing quality control steps, we prepared the data for downstream analyses.
Conclusion: This study highlights the potential of scRNA-seq and the importance of pre-processing steps in understanding the cellular responses to COVID-19. The use of 10x Genomics and ScanPy on the Galaxy platform provides an accessible and powerful toolset for researchers to analyze single-cell transcriptomics data.

G-1163

Pathway Analysis Methods: A Review of Strengths, Limitations, and Diversity for Omics Research

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Introduction: Because gene lists alone cannot explain the complicated mechanisms involved in each sickness, the knowledge available in the databases' pathways must be used. Pathway analysis (PA) is becoming one of the most essential omics research mPA methods have helped researchers in the identification of the biological roles of candidate genes. Users sometimes overlook information regarding the right way to apply the approaches, their limitations, and the existence of other PA methods. Therefore, reviewing the foundations and diversity of PA methods and acknowledging their capabilities and limitations is essential.ethods.

Method & material: Because pathway analysis and discovering crosstalk between pathways are important issues, we discussed and evaluated four relevant methodologies, examining their strengths and drawbacks. We employed the Google search engine and databases and websites such as Pubmed, PAGI, and PathwAX in this investigation. The statistical methods of each algorithm were analyzed. Relevant articles from 2013 were reviewed, and then the procedures used in each of these four tools and the statistical methods of each algorithm were carefully investigated.

Result: Generally, pathway analysis methods can be separated into two groups. The first category includes non-topology-based methods such as Pathifier and PathTracer, and the second includes topology-based (TB) methods such as PathwAX and PAGI. In non-topological methods, all the dependencies and interactions between genes that are supposed to capture and explain biological phenomena are completely ignored. To insert all this additional information into the analysis, topology-based (TB) methods were developed. Topologies of pathways can aid in providing more detailed and comprehensive biological insights. It was found that in non-topology-based methods, notwithstanding their shortcomings compared to TB methods, the analysis is performed in a relatively low-dimensional environment at each stage. They avoid the curse of dimensionality that results from employing a few data points in a larger dimensional space. As a result, their results are more resistant to changes, such as deleting some of the pathways or samples from the analysis.

Conclusion: The growth of the PA approach is owing to the improved interpretability of the results and its stronger statistical power when compared to gene-level statistics, and so the adoption of this approach in investigations, particularly in genome size (omics) trials, is critical. The primary reason for omics' importance is that a variety of pathway analysis methods that leverage multi-omics settings, rather than simply transcriptomics or proteomics, have recently been created to uncover new pathways and biomarkers.

G-1165

Modeling of effective variables in Microwave and Ultrasonic extraction on antioxidant properties, yield and MIC of Scrophularia striata and olive leaf extract on Listeria Monocytogenes

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Introduction:: The use of new extraction methods is very significant to achieve the properties of plant extracts. In this study, the antioxidant and antimicrobial properties of Scrophularia striata extract and olive leaf were investigated using microwave and ultrasound extraction methods.

Method & material: After the design of the experiments by Box-Behnken design, the bacterial culture and the preparation of different dilutions of extracts and inoculation to the samples were carried out and the phenolic content and antioxidant properties were determined by TPC and DPPH and antimicrobial properties with minimum inhibitory concentration by the method of microdilution in broth for the extracts.

Result: The highest TPC values were 0.26±5.34 for olive leaf and 0.14± 2.89 for Scrophularia striata by ultrasound irradiation, and the highest DPPH was obtained for olive leaf 2.6 ± 52.13 and for Scrophularia striata 2.76± 55.24 with microwave radiation. The highest yield was 152 ± 7.5 mg/g for microwave radiation and 8.35 ± 167 for Scrophularia striata and P0.05 among all groups. The highest MIC level for olive leaf with ultrasound was 0.015±0.24, while in all experimental designs, the MIC was constant for thirst and only for olive leaf p0.05.

Conclusion: Differences in the higher yields and antioxidant compounds of the extracts may be due to different reasons. Olive leaf and Scrophularia striata plant may have good potential to reduce Listeria monocytogenes contamination, but they should be studied in the future.

G-1167

Artificial intelligence methods in breast cancer diagnosis: a systematic review

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Introduction: Cancer is the second cause of the women's death and Breast cancer is the main cause of cancer-related death for women around the world. Early diagnosis is the most important factor to increase the 5-year survival rate and treatment outcomes. Artificial intelligence (AI) has revolutionized medical diagnosis by providing accurate and efficient solutions to medical problems. The objective of this systematic review is to identify and summarize the current AI-based breast cancer diagnosis methods using the latest artificial intelligence applications.

Method & material: A comprehensive search was conducted using PubMed, Scopus, Cochrane library and Web of Science database from January 2000 to May 2023. The following keywords were used breast cancer, diagnosis, artificial intelligence, machine learning, deep learning neural networks and support vector machines in the title and the abstracts. In Our Initial search 11,843 articles were found. After removing duplicate articles, the titles and abstracts were read and irrelevant articles were removed, 152 articles were extracted for reading the full text and match with the quality checklist, the articles were divided into 3 quality levels. Finally, articles with high and medium quality groups, totaling 58 articles, were included in this review.

Result: These studies evaluated various types of AI applications including machine learning (ML), deep learning (DL), convolutional neural networks (CNNs), support vector machines (SVMs), and Hybrid approaches. The four main categories of AI-based diagnosis methods are: Image-based, gene expression-based, clinical data-based, and multimodal. Image-base methods use AI algorithms to analyze different imaging modalities, which can achieve high accuracy and specialty in diagnosis and reduce false-positive and false-negative detections. Gene expression-base methods use AI algorithms to analyze expression patterns and molecular markers associated with breast cancer, which provide valuable information about tumor characteristics, prognosis and response to treatment. Clinical data-based methods use AI algorithms to analyze data, such as patient demographics, medical history, and tumor pathology to identify patterns, correlations and facilitate personalized treatment planning. Multimodal methods combine multiple types of data, that improve the accuracy and reliability of the breast cancer diagnosis.

Conclusion: AI-based methods are a potential solution to enhance the diagnosis of breast cancer. These methods have demonstrated high accuracy and sensitivity rate, and shown more specificity compared to traditional methods. However, further studies are essential to validate these findings in larger patient populations with more diversity in demographics and imaging modalities. Standardization of data collection protocol and development of universal diagnostic models could help overcome some limitations associated with AI-based breast cancer diagnosis. There are also ethical concerns related to data privacy and bias, particularly if the data used to form the algorithm is not auditable. Hopefully, these methods revolutionize breast cancer diagnosis and, ultimately, leading to improved patient outcomes.

G-1168

Risk of dementia in patients with Atopic Dermatitis: A Systematic Review and Meta-Analysis

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Introduction: Dementia is a clinical syndrome characterized by a progressive deterioration in cognitive ability, and chronic inflammation is known as one of the factors related to the occurrence of dementia. Atopic eczema is one of the chronic inflammatory skin diseases which is caused by an overactive immune system that causes the skin barrier to become dry and itchy. Despite considerable studies investigating about the relationship of atopic dermatitis and Dementia, there has been no systematic review in this area. Therefore, this study aimed to determine the relationship between atopic eczema and risk of dementia.

Method & material: Based on Cochrane systematic review principles and PRISMA guideline, A systematic search of PubMed, Scopus, and Web of Science databases was performed up to June 2023. The following keywords were used in our search: "atopic dermatitis", "atopic eczema" or "eczema" and "dementia" or "Alzheimer's disease". All of longitudinal studies aiming to assess the relationship between atopic eczema and risk of dementia in patients were included in the study. The exclusion criteria was animal, cell and interventional studies, review and conference papers. Two authors conducted screening and data extraction with using a standardized data collection form independently. The Newcastle-Ottawa Scale (NOS) was used for quality assessment of included articles. We calculated pooled hazard ratios (HRs) with 95% confidence intervals (CIs) by Stata v14.2 Software. Subgroup and sensitivity analysis were performed to assess the potential sources of heterogeneity of the pooled estimation.

Result: Among 26 study, four longitudinal studies that included 281,569 patients with atopic dermatitis at baseline and 14,709 dementia cases after an average 8 years of follow-up were eligible for inclusion. Compared with individuals without Atopic eczema, patients diagnosed with Atopic dermatitis had a higher risk of incident all-cause dementia, Alzheimer's disease, and vascular dementia. The subgroup analysis demonstrated that atopic eczema increased the risk of Alzheimer's disease more than other types of dementia. Moreover, there was a severity-dependent relationship between atopic dermatitis and risk of dementia. The pooled hazard ratios adjusted for mediators in this meta-analysis suggests that atopic dermatitis may predict the risk of incident dementia.

Conclusion: Based of the results, the patients with atopic eczema are at a higher risk of developing dementia in middle age and elderly. Also, this study showed that the relationship between atopic dermatitis and Alzheimer's disease is clearly more significant.

G-1169

Investigating the Physicochemical and Microbial Quality of Drinking Water in Behbahan in 2023

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Introduction: Water quality directly affects the health and hygiene of society and plays an effective role in preventing many diseases. Therefore, continuous monitoring of drinking water quality can play a key role in adopting appropriate management and treatment methods to improve drinking water quality. The aim of this study is to investigate some of the most important physicochemical and microbial characteristics of drinking water in Behbahan city, Iran in 2023.

Method & material: The study was conducted from April 2022 to March 2023. A total of 216 water samples (18 samples per month) were randomly taken from purified tap water under sterile conditions. The samples were tested in the Chemical Laboratory of Behbahan Faculty of Medical Sciences. The characteristics of water, including residual chlorine, pH, EC, turbidity, Clostridium perfringens, and coliform were measured according to the Standard Methods guidelines (23r Ed, 2017). The results were analyzed using Excel and SPSS software.

Result: The results of the study showed that the average residual chlorine, pH, EC and turbidity are respectively 0.64 ± 0.32 mg/l, 7.54 ± 0.18, 363 ± 53 µSiemens/cm and 0.9 ± 0.22 NTU, respectively. The maximum values of these parameters were 2 mg/l, 8, 470 µSiemens/cm, and 1.98 NTU, respectively. Also, their minimum levels are 0 mg/l, 6.6, 23 µSiemens/cm and 0.14 NTU, respectively. Also, no coliform and Clostridium perfringens were found in any of the samples. In general, the averages of all measured parameters were lower than the maximum allowable limit recommended by Iran's National Standard 1053 (the maximum allowable of residual of chlorine, pH, EC and turbidity are 1,9 mg/l, 500-90 µSiemens/cm (recommended) and 5 NTU), respectively)

Conclusion: In general, it can be concluded that the measured parameters of Behbahan drinking water have reached Iran's National Standard 1053. On some days, although some of the measured parameters were higher than the standard due to various unknown reasons, but in general, the averages of all measured parameters were lower than the maximum recommended by the Iranian standard No. 1053. However, due to the importance of drinking water quality on community health and disease prevention, it is necessary for relevant authorities to pay special attention to water hygiene.

G-1170

The smart diagnostic,therapeutic and educational device for traditional chinese medicine:A protocol study for an invention based on AI

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Introduction: Traditional chinese medicine (TCM) has been practiced in China for more than 3000 years and is widely used around the whole world nowadays.TCM exhibits significant efficacy against many diseases.The TCM therapist starts the diagnosis process by determining the patient's disharmony pattern with takes a medical history and examination, including checking the pulse and observing the tongue and sometimes the iris and etc.Then performs the treatment with various methods such as herbal therapy, acupuncture, tai chi, diet, acupressure and etc. Today, artificial intelligence (AI) has greatly contributed to the advancement of medicine.I expect that this smart device will achieve its diagnostic, therapeutic and educational goals with the help of AI.

Method & material: This smart healthcare device equipped with various components, including a pulse analysis sensor, a tongue and iris analysis camera, a scanner, and a CPU. The device begins by gathering a comprehensive patient history through a standard questionnaire. Subsequently, it compares this data with a predefined database, employing Traditional Chinese Medicine (TCM) principles to detect any patient disharmony. An attention mechanism aggregation module evaluates symptom contributions to syndrome classification, considering symptom features and interactions. Symptoms exceeding a certain threshold form a group for syndrome diagnosis, with the most representative group chosen for each syndrome type. Treatment is provided through text files detailing diet and herbal therapy, along with videos for tai chi and acupressure exercises. Notably, the device can facilitate acupuncture treatment using an intelligent voice assistant. It identifies acupuncture points using anatomical landmarks and automatically administers needles. Additionally, the device supports electroacupuncture and needle manipulation

Result: None of the diagnostic methods of TCM are complete alone, also the different perception of different therapists on the numerous diagnostic criteria of Chinese medicine causes differences in the quality of diagnosis and treatment. A validation study in 2022 done by Tianyong Hao and colleagues in China entitled Artificial Intelligence–Based Traditional Chinese Medicine Assistive Diagnostic System which is just based on Patient history. The difference of this research with my plan is that in addition to the history of the patient, my device performs the diagnosis process by analyzing the pulse, tongue and iris, and then performs the treatment automatically with the help of its voice assistant.

Conclusion: Reducing the diagnosis cost, will decrease financial burden. Definitely, this smart device will be very useful for the educational use for Chinese medicine students due to it's full coverage of the diagnosis and treatment process.

G-1173

Padina pavonica methanol partition prevented depressive behavior in mice

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Introduction: Brown algae Padina pavonica has antioxidant, anti-inflammatory and protective effect against oxidative stress, neuroinflammation, mitochondrial dysfunction and neurodegenerative disorders. While inflammatory processes, mitochondrial dysfunction, and oxidative stress are involved in the pathophysiology of depression. Considering the good effects of P. pavonica and since its antidepressant effects have not been studied before, we investigated P. pavonica methanol fraction (PMF) in mice model.

Method & material: Animals: Male mice (25±2g) were used, each group consisted of 7 animals.

Drug therapy: To induce depression, dexamethasone was injected subcutaneously at a dose of 15 µg/kg for two weeks. PMF was administered intraperitoneally (80 and 160 mg/kg). Following the administration of a single dose of the extract, the behavioral tests started after 3 hours. In the long-term method, PMF was administered (80 and 160 mg/kg) daily for 14 days. After the locomotor test, immobility during the force swimming test (FST) was measured after the first dose and the last dose in the same groups of mice. The Novelty-suppressed feeding test (NFT) was performed on day15

Result:PMF reduced the immobility time during FST after a 160mg/kg single dose and after the long-term administration (p0.01) proved to have antidepressant effect. Dexamethasone increased immobility time during FST. The combination treatment of 160mg/kg dose of PMF and dexamethasone In the long-term administration also significantly reduced the immobility time (p0.001 vs.Dex) .These changes were in the absence of important changes in the locomotor activity. The average amount of food consumed by the group receiving PMF with a dose of 160 mg/kg for 14 days was significantly different from the corresponding control group (mg per weight), which is a proof of the antidepressant effects of PMF (p0.001). There was a significant difference in food consumption between the group that received PMF at a dosage of 160 mg/kg along with dexamethasone for 14 days and the group that received dexamethasone alone (p0.05).

Conclusion:PMF led to a decrease in immobility time during the forced swim test. After the administration of PMF in the NFT, both the delay in eating duration decreased and the amount of food consumed increased.

PMF showed antidepressant like effects in mice, Its antidepressant like effects could be because of its antioxidant and neuroprotection effect and protective effect against neuroinflammation that needs further investigation.

G-1174

The effect of self-efficacy in Dietary Adherence among Type 2 Diabetics

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Introduction: Diabetes is one of the most common chronic and progressive diseases and is known as one of the main causes of death worldwide, especially in developing countries. Type 2 diabetes is known as the most common type of diabetes with the most cases. One of the treatments for type 2 diabetes is Adherence a healthy diet. Diet in type 2 diabetic patients reduces the complications caused by the disease and increases the quality of life. This research was conducted with the aim of the effect of self-efficacy in Dietary Adherence among Type 2 Diabetics in Zahedan.

Method & material: In this cross-sectional study, 210 patients with type 2 diabetes referred to the diabetes clinics of Zahedan during 2022 participated. The intervention group (105 people) and the control group (105 people) were selected from Zahedan diabetes clinics by coin tossing. Sampling method was done by simple random sampling among patients. After collecting the data using the demographic characteristics questionnaire, the standard diet compliance questionnaire and the self-efficacy constructs of the health behavior process approach, the pre-test analysis was done. Then there was an educational intervention. One month and three months after the educational intervention, self-efficacy and self-care behavior questionnaires were completed by the patients and analyzed. Data were analyzed using independent t, chi-square and Shapiro-WILK tests in SPSS version 23 software.

Result: The results of this study showed that action self-efficacy, coping self-efficacy, recovery self-efficacy and self-care behavior had a significant difference in one month and three months after the training intervention (P0.05), this indicated the effectiveness of the training in the intervention group. But there was no significant difference in the control group (P0.05).

Conclusion: A significant percentage of patients did not follow a healthy diet pattern, which could be due to illiteracy, social and economic status of the studied community, and lack of proper planning for type 2 diabetic patients.

The intervention with the health action process approach model showed that self-efficacy after training had a significant effect on patients' self-care in the field of dietary adherence.

G-1175

The effect of Endometriosis on the risk of cardiovascular diseases: A Systematic Review and Meta-analysis

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Introduction: Endometriosis is a chronic disease that affects women of reproductive age. It is characterized by the presence of endometrial-like tissue outside the uterus, which induces a local inflammatory response. The current meta-analysis was done based on six basic steps including search methodology and search strategy, screening, selection, data extraction, quality assessment and meta-analysis according to the structure of selected report items for systematic reviews and meta-analyses (PRISMA) for determining the association between endometriosis and cardiovascular diseases.

Method & material: This meta-analysis was gathered based on the PRISMA guidelines. The preferred databases for searching included PubMed (Medline), Scopus, Web of Sciences, Embase, and Cochrane Library, from January 2000 to April 2023. Some of the basic keywords were "Endometriosis", "cardiovascular diseases", and the synonyms of these keywords were retrieved through Mesh and Emtree. After the search, articles were screened based on the title, abstract and full text. And finally, using the researcher's own checklist, data extraction was done. Finally, the quality assessment of the articles was accomplished based on the NOS checklist, and data analysis was done with version 17 of STATA software.

Result: In the search strategy, 1849 articles were collected from all databases. Among these, 755 studies were excluded due to duplication and 1094 remained. After the screening that was done in terms of title, abstract and full text, only 15 studies remained. Out of the 6 selected studies, 5 studies were analyzed in the CVD category, whose details and characteristics are presented. Finally, by combining results of studies, the pooled RR was 1.23 (RR: 1.23; 95% CI: 1.16, 1.31, I square: 87.15 %; P value: 0.00), which shows that there is a 23 % risk of CVD in women with endometriosis was higher than women without endometriosis. Also, results showed that the risk of HTN in women with endometriosis than women without endometriosis was 1.13 (RR: 1.13; 95% CI: 1.10, 1.16, I square: 0.00 %; P: 0.56).

Conclusion: In conclusion, our meta-analysis provides evidence that endometriosis is associated with a significant increase in the risk of CVD and HTN. This finding highlights the importance of early detection and management of cardiovascular risk factors in women with endometriosis, and underscores the need for further research to elucidate the underlying mechanisms of this association and identify effective interventions to mitigate this increased risk.

G-1176

Synthesis of a Quaternary Ammonium Salt Based on Mesoporus Magnetic Nanoparticles as a Targeted Nanocarrier for the Delivery of Doxorubicin to Breast Cancer Cells

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Introduction: One of the important strategies to overcome the obstacles against successful cancer chemotherapy is nanotechnology. Many drug delivery systems have been developed to achieve this issue with different mechanisms. In this study, a biocompatible and magnetic nanocarrier composed of a novel quaternary ammonium salt based on mesoporus magnetic nanoparticles (MMNPs \ PEI) was synthesized for the delivery of doxorubicin to MDA-MB-231 breast cancer cells

Method & material: Quaternary ammonium salt based on polyethyleneimine was used for the surface modification of mesoporus silica nanoparticles to enhance the drug loading efficiency, biocompatibility, stability, and efficiency on cancer cells. Following the synthesis of nanocarrier based on magnetic mesoporus silica modified with polyethyleneimine, the physico-chemical characteristics were evaluated using FTIR, SEM, DLS, zeta potential, VSM, and XRD. Furthermore, prior to cell toxicity study of drug-loaded nanoparticles, in vitro drug release studies were performed in pH=7.4 and pH=5.5 as the indicator of physiologic and tumor microenvironment pH values, respectively.

Result: The FTIR results indicated the successful synthesis of the nanocarrier. SEM images indicated the spherical morphology and size distribution of nanoparticles at about 22-35 nm. Furthermore, the XRD and VSM results indicated the crystalline and magnetic properties of the nanoparticles. In vitro drug release studies revealed the pH-triggered capability of the nanoparticles which can improve the cytotoxic potency of the doxorubicin. The results of cell viability assay also indicated the enhanced cytotoxicity of doxorubicin in MDA-MB-231 breast cancer cells in drug-loaded nanoparticles in comparison to free drug.

Conclusion: These results indicate that the fabricated nanoparticles could sensitize breast cancer cells to doxorubicin and thus can be suggested as a possible tool for the delivery of doxorubicin to breast cancer cells.

G-1177

The Effect of Cyclophosphamide on Ovarian Reserve Reduction via the PI3K/AKT/mTOR Pathway: A Systematic Review of in Vivo Original Articles (from 2016 until Now)

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Introduction: Cyclophosphamide, a common chemotherapy agent, is associated with a decrease in primordial follicles, which leads to a decrease in ovarian reserve and eventually causes fertility problems and premature ovarian failure. The PI3K/AKT/mTOR pathway plays a crucial role in regulating ovarian function and has been implicated in the mechanisms underlying ovarian reserve reduction. This systematic review aims to evaluate the current evidence from in vivo studies on the effect of cyclophosphamide on the reduction of ovarian reserve through the PI3K/AKT/mTOR pathway from 2016 to now.

Method & material:A comprehensive search of the electronic scientific database (Google Scholar) was performed to identify the main articles related to the investigation of the effect of cyclophosphamide on ovarian reserve and the involvement of the PI3K/AKT/mTOR pathway. Inclusion criteria included in vivo studies (mice and rats) published in English since 2016 on the effect of cyclophosphamide on ovarian function, assessment of ovarian reserve markers, and reporting activation of the PI3K/AKT/mTOR pathway. With the keywords cyclophosphamide, PI3K/AKT/mTOR pathway, ovarian reserve and in vivo, 15 articles were selected for this systematic review article.

Result: Different doses of cyclophosphamide, including single doses, weekly injections and daily injection have been administered. Findings demonstrated that cyclophosphamide treatment led to a significant reduction in ovarian reserve as evidenced by decreased primordial follicle count, diminished body or ovarian weight, and altered levels of AMH and FSH. Furthermore, PI3K/AKT/mTOR pathway was identified as a key mechanistic mediator of cyclophosphamide-induced ovarian damage, showing activation of this pathway in response to cyclophosphamide treatment. Several mechanisms have been proposed to explain the protective effects of the PI3K/AKT/mTOR pathway. First, this pathway regulates cell proliferation, survival, and differentiation, all of which are key processes in folliculogenesis, and this mechanism is the main process side effect of cyclophosphamide as demonstrated in all 15 articles. Second, this pathway regulates the expression of anti-apoptotic factors, which can prevent cyclophosphamide-induced follicular apoptosis. Third, this pathway regulates the production of growth factors and cytokines that can support follicular growth.

Conclusion: This systematic review provides evidence that cyclophosphamide reduces ovarian reserve by the PI3K/AKT/mTOR pathway. The findings suggest that interventions that target this pathway may have the potential as protective strategies against cyclophosphamide-induced ovarian toxicity. However, further studies are needed to confirm the efficacy of these interventions and to translate these findings into clinical practice.

G-1178

Caregiving burden and the quality of life of family caregivers of cancer patients in Iran

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Introduction: Cancer is one of the common chronic diseases and a major health problem that affects patients and their family caregivers.In Iranian culture, family plays an important role in patient care.Family caregivers, in addition to the disease process, are influenced by hospital policies, economic problems, access and communication with the treatment staff.This process will affect their quality of life, therefore, in this research, a systematic review has been conducted in line with the caregiving burden of family caregivers of cancer patients and their quality of life.
Method & material: In this review research, articles published in Farsi and English between 2018-2022 were searched by the researchers in google scholar,PubMed,SID,Magiran , science direct by Using the keywords of caregiving burden,cancer,quality of life,family caregivers in both Farsi and English languages based on the criterias of being relevant to the purpose of the research, the time of the research, the use of the structured framework of the research and the full text of the article.
Result: 23articles were reviewed. In these studies, the studied population was in the age range of 20 to 60 years. Caregiving burden had a negative effect on the quality of life of 80 to 90% of the families and no effect on 10 to 20% of the families. 50 to 60% of caregivers were the patient's spouse. Caregiving burden is more in younger caregivers and women. 70% to 80% of retired caregivers, students and employees, and 90% of freelancers faced personal and social problems. Other risk factors related to the amount of caregiving burden of family members of cancer patients include insufficient income, low education, living with the patient, depression, devoting more time to care and social isolation.
Conclusion: Managers and policy makers are expected to take steps in order to support, pay attention to the problems and reduce the suffering of caregivers of cancer patients. The greatest need of caregivers is the lack of specialized information about cancer, how to care for the patient, and how to care for themselves. Nurses are expected to provide caregivers with sufficient information related to cancer and provide caregivers with the necessary training related to cancer patient care and self-care.

G-1179

Survey of knowledge and attitude of the elderly referring to health centers in Shoushtar city about a healthy lifestyle in 1401

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Introduction: Old age is one of the most important periods in the life of every person and at this age a person undergoes fundamental physical, psychological and social changes. Awareness of a healthy lifestyle at this age can reduce the burden of disease as well as treatment costs, secondary disabilities and psychological problems caused by disease and disability. The aim of this study was to determine the level of knowledge and attitude of the elderly referring to health centers in Shoushtar city about a healthy lifestyle in 1401.

Method & material: The present study was a descriptive study. The study population consisted of 110 elderly people over 60 years old who referred to health centers in Shushtar city. The sampling method was simple random and the data were collected using demographic information questionnaire and Walker Health Promoting Lifestyle Questionnaire (HPLP) and the data were collected by SPSS software version 22 and T-Test. Chi-square, Pearson correlation were analyzed (p 0.05)

Result: Among the study participants, 48 were residents of the city and 62 were residents of the village. 58 participants were female and 52 were male. There was a significant relationship between knowledge about health-promoting lifestyle and place of residence (P 0.001), religious beliefs (P 0.001), job (P 0.001), ie healthy lifestyle in rural areas due to living environment, Jobs and nutrition were higher than those living in the city.

Conclusion: According to the findings of this study, a healthy lifestyle depends on many factors, but in general, one of the factors influencing the choice of this lifestyle by people is the habits and teachings that have been acquired over the past decades. And then it relates to the living environment and traditions. It is recommended that health centers pay more attention to teaching healthy lifestyles to the elderly, and that this also be on the agenda of health policy makers.

G-1180

Investigating the effect of vitamin E supplementation on clinical symptoms in women with polycystic ovary syndrome, A systematic review

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Introduction: Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders in women of reproductive age. This syndrome is caused by the rise of male hormones (androgens) and lack of ovulation in some menstrual cycles. The most common symptoms of this syndrome are infertility, overweight, increased insulin resistance, heart diseases and high blood pressure. Studies have shown that dietary intake and supplementation with some micronutrients, including vitamin E, have a significant relationship with reducing the symptoms of this syndrome. However, the findings seem contradictory in this regard. Therefore, the aim of this study is to review the available evidence on the effect of vitamin E supplementation and reduction of polycystic ovary syndrome symptoms.

Method & material: The systematic search was conducted in the online databases including PubMed, Web of science, Scopus and google scholar up to June 2023 without publication date or language restrictions. The following search terms were used for the systematic search: Vitamin EOR α-tocopherol OR γ- tocopherol and polycystic ovary syndrome OR PCOS. In addition, the references of the studies have been checked for inclusion the related articles. In this review, all clinical trial, cross-sectional, prospective and retrospective studies that investigated the relationship between vitamin E intake and polycystic ovary syndrome were included in the evaluation.

Result: Out of the reviewed articles, finally 11 clinical trial studies that examined the effect of vitamin E supplement on polycystic ovary syndrome in humans were included. Most of the articles showed that receiving optimal levels of vitamin E alone or in combination with other micronutrients such as omega-3, vitamin D, magnesium and coenzyme Q10, can improve the symptoms of polycystic ovary syndrome, including menstrual disorders and hirsutism. Also, Vitamin E supplementation can reduce fasting blood sugar levels, Blood triglycerides, LDL-cholesterol, testosterone, progesterone and FSH. Studies have also shown that the use of antioxidants, including vitamin E, can reduce the severity of symptoms in women with polycystic ovary syndrome and metabolic syndrome, through reducing energy intake and weight loss.

Conclusion: In general, the findings of the present study showed that receiving vitamin E supplements has a direct accusation in reducing the symptoms of polycystic ovary syndrome, and this relationship becomes stronger especially with the intake of other micronutrients. However, it seems that in order to confirm this protective effect as well as the optimal effective dose of this vitamin, more clinical trial studies are needed in this field.

G-1181

Effects of Aromatherapy with Matricaria Chamomile Essential Oil on Anxiety and Hemodynamic Indices in patients with Acute Coronary Syndrome, 2020.

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Introduction: Patients with acute coronary syndrome experience high levels of anxiety, which may have adverse consequences such as instability of hemodynamic indicators, increased risk of ischemia, heart infarction, and reduced quality of life. Aromatherapy is one of the widely used methods in complementary medicine, which can be effective on the level of anxiety and improving the hemodynamic indicators of patients. For this purpose, the present study was conducted with the aim of determining the effect of aromatherapy with chamomile essential oil on anxiety and hemodynamic indicators of patients with acute coronary syndrome.

Method & material: This study is a double blind randomized clinical trial on 154 patients with ACS. The participants were placed in two equal groups of intervention and placebo by random sampling. The instrument consisted of demographic information, a shortened 6-item version of the Spielberger questionnaire and a form of hemodynamic indices. For two consecutive nights, the intervention group inhaled 7 drops of the chamomile essential oil (%10) and the placebo group inhaled 7 drops of the sesame oil that poured on a sterile cotton ball. The hemodynamic indices were collected half an hour before, one and four hours after the intervention until the next morning and the anxiety questionnaire was completed before and after the intervention. Data analysis, was done using Chi-square, paired t-test and analysis of variance in SPSS22.

Result: The mean and standard deviation of the age of the samples was 58.2±11.6, most of them were in the age group of 60-69 years, 59.7% were women, and 35.1% of their education level was below diploma. The results of analysis of variance showed that after the intervention, the adjusted average of the anxiety score and hemodynamic indices including systolic blood pressure, systolic blood pressure and pulse rate after the intervention in the aromatherapy group with chamomile essential oil was significantly lower than the placebo group (p0.001). Also, the results showed that the effect of aromatherapy on the level of anxiety, heart rate and blood pressure is positive and significant (p0.05) after controlling for the intervening individual variables. Also, there was a significant decrease in heart rate changes after the intervention in the intervention group at all hours 4, 8 and 12 on the first (p0.007) and second (p0.001) days.

Conclusion: Aromatherapy with chamomile essential oil reduces the level of anxiety and improves hemodynamic indicators (systolic blood pressure, diastolic blood pressure and pulse rate) in patients with acute coronary syndrome.

G-1184

Managing the Coders' Problems for COVID-19 clinical coding using social network

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Introduction: The accuracy of COVID-19 coding is critical for correct statistics and policymaking. These codes are also used in secondary research, including finding treatment methods and new drugs.

Codes and guidelines for coding new pandemics are announced by the World Health Organization. Due to the fact that the pandemic is unknown, in many cases, these instructions have some defects in the beginning, which are gradually corrected. This problem led to inconsistency in COVID-19 coding.

Method & material: To solve the Covid-19 coding problem a telegram group was established. Coders exchanged their experiences about the coding of Covid-19 in this group. Some supervisors were checking the consultations. We extracted and categorized the consultations. Also, some parameters such as the number of messages, time, the percentage of answered messages, the duration of the response, the length of conversations, etc were extracted. A questionnaire was sent to the coders who participated in these consultations to extract their problems, demographic information, and the helpfulness of the social network consultations.

Result:A total of 76 coders participated in this study and exchanged 2070 messages on the topic of COVID-19. We excluded 730 messages, which did not focus on COVID-19 coding. The type of messages included 1233 (92%) text messages, 67 (5%) images, and 40 (3%) files. A total of 1340 messages in 332 conversations were exchanged between coders. We categorized topics of consultations into 11 categories. Most consultations dealt with "suspected or probable cases" (n = 71), "clinical coding and diagnosis documentation instructors" (n=59), and "additional codes" (n=35) among 332 conversations. In 47% of consultations, the first reply was less than 10 ± 3 min. In 23% of consultations, there were no specific answers. maternal and infant cases, procedures, drugs and ICU cases and other diseases with contact with and exposure to COVID-19 or COVID-19 history were the most subjects. In 158 (47.5%) cases, consultations were concluded during work hours.

Conclusion:: To increase the quality and speed of coding during pandemics and other times, remote consultation based on social networks can be used. Sharing coding experience among coders can improve coding quality and accuracy.

G-1186

The frequency of reactive gingival lesions in patients referred to pathology department of Isfahan Dental school, a thirty-three-year survey (1368-1400)

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Introduction: Gingival tissue growth occurs for a variety of reasons such as reactive causes and exhibit tumor-like hyperplasia, which necessitates the identification of the prevalence and associated factors. Therefore, the aim of this study was to evaluate the frequency of reactive gingival lesions in patients referred to the pathology department of Isfahan University of Medical Sciences, Isfahan, Iran (1368-1400).

Method & material: This cross-sectional descriptive-analytic study was performed based on the pathologic lesions examined from the gingiva that were diagnosed in the subset of reactive ulcers. All records of oral pathology department of Isfahan Dental School during the years 1368-1400 were reviewed and demographic data of patients including sex, age, exact location of the lesion on the gingiva and definitive pathological diagnosis were collected and were entered into SPSS software. The frequency distribution tables and their analysis were done with standard Fisher, Kruskal-Wallis, Mann-Whitney, Chi-square, Lone and Kolmogorov-Smirnoff tests (pv0.05).

Result: Findings of our study showed that 56.8% of patients had peripheral ossifying fibroma (POF), 22.2% had pyogenic granuloma (PG), 12.2% had peripheral giant cell granuloma (PGCG), 7.9% had irritation fibroma (IF) and 0.9% had Epulis fissuratum (EF). The lowest average age was in patients with POF (29.83 years) and the highest average age was in patients with Epulis fissuratum (47.29 years). The age of patients with POF lesions was significantly different from the age of patients with PG and PGCG lesions (p=0.001), as well as with the age of patients with IF lesions (p0.001), but other lesions did not show statistically significant differences. Of course, in the case of Epulis fissuratum lesion (where the patients were older than other groups), the lack of significance is related to the small number of samples. No significant difference was observed based on age and site of involvement in the lesions.

Conclusion: It seems that the findings of the present study (prevalence of reactive gingival lesions and demographic characteristics of patients) can provide useful information to clinicians and possibly help in the faster diagnosis and treatment of these lesions.

G-1187

Virtual education status from the perspective of students of Kurdistan University of Medical Sciences during the Covid-19 pandemic

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Introduction: During the Covid-19 pandemic, many measures were taken to limit communication and break the chain of infection. One of these measures was holding university classes virtually. The present study was conducted with the aim of investigating the Virtual education status from the perspective of students of Kurdistan University of Medical Sciences during the Covid-19 pandemic.

Method & material: This cross-sectional study was conducted in 2022 among Kurdistan University of Medical Sciences students who had experience in the present and virtual classes. The tool used included 4 sections demographic characteristics and the level of individual skills in the field of IT, the advantages and disadvantages of virtual education, the comparison of the present education with virtual learning, and the acceptance rate of virtual classes. Chi-score and Wilcoxon tests were used at a significance level of p0.05.

Result:A total of 406 students participated in the study, 54.4% (221 people) were men, 90.2% (363 people) in the age group of 21 to 30 years, 36.2% (147 people) from medical school, and 48.8 % (198 people) were third-year students. Easy access to online materials (56.8%) and reduce interaction with the professor (70.4%) were the most important advantages and disadvantages of virtual education, respectively. Also, present (traditional) education was more effective than virtual training in terms of increasing knowledge and clinical skills, and competence (p0.05). Acceptance rate (69% vs. 37%) and student activities (60% vs. 33%) were significantly higher in traditional education compared to virtual education (p0.05). Also, there was a significant difference between the schools regarding the effectiveness and strength of traditional education compared to virtual education (p0.05).

Conclusion: Considering the significant difference in the effectiveness and acceptability of traditional education compared to virtual education. As well as there were differences in the importance and necessity of implementing virtual education programs in recent years after the pandemic and the possibility of universities' tendency to combine virtual education with traditional education in the future, it is important to try to improve virtual education infrastructure and provide solutions to solve problems and improve virtual programs.

G-1188

Antioxidant activity of extracted alginic acid from Sargassum angustifolium brown algae based on its chemical structure

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Introduction: An imbalance between the synthesis of reactive oxygen species (ROS) in cells and tissues and the capacity of biological systems to detoxify these reactive products results in a phenomenon known as oxidative stress,which may lead to lifelong diseases.As a result,researchers are always looking for chemicals with antioxidant properties.Because of their extensive structural variety and biological activity,marine natural products (MNPs),which are created in response to the harsh and competitive conditions of the marine environment,are attractive sources for the manufacture of antioxidants.One of the most significant algal families is Sargassaceae which includes many active compounds.The cell-wall polysaccharide of this brown algae is alginic acid.In order to use this polysaccharide and investigate on its various effects,It must first be isolated from brown algae and the operational parameters of extraction need to be optimized to reach the maximum antioxidant effect.Considering that 90% of the world's commercial alginic acid is extracted from brown algae, this

Method & material: Algal samples were collected on 2020's winter from Lian Park of Bushehr.(Latitude and longitude of28.86◦and50.85◦).The isolation of alginic acid from algae consists of four main steps:preparation,extraction of alginic acid from algae,purification,and determination of yield and structural characterization.The operating parameters of this separation are temperature, time, and the use of new technologies and green extraction methods, such as the use of ultrasound waves during extraction. The effects of changing the parameters (temperature, time, and power of ultrasonic waves) used in the extraction of alginic acid were discussed based on changes in the antioxidant effect. After the separation of alginic acid from brown algae, the extraction efficiency was first calculated, its M/G was measured using 1H NMR spectra, and the antioxidant activity of the extracted alginic acid was examined using the DPPH method.

Result: The lowest IC50 and the highest antioxidant effect were observed in sample No.4with an extraction temperature of 65 °C, extraction duration of 25 min, and 640 power of ultrasonication, whereas the highest IC50 and the least antioxidant effect were observed in sample No.7at an extraction temperature of 45 °C, extraction duration of 20 min, and 480 power of ultrasonication.

Conclusion: Increasing the temperature and the extraction duration in a certain range, increases the amount of IC50 and as a result, the antioxidant activity of the extracted alginic acid decreases. Contrary to those, increase in the intensity of the waves has increased the antioxidant activity.

G-1189

The Effect of Ketogenic Diet on Lipid Profile in Cardiovascular Disease: A Systematic Review of Randomized Clinical Trials

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Introduction: Cardiovascular disease (CVD) is the first leading cause of death worldwide, accounting for approximately 17.9 million deaths in 2019. Furthermore, obesity and dyslipidemia are determined as the two most important risk factors of CVD. The ketogenic diet (KD) is a high-fat (70%), low-carbohydrate (10%) diet that causes the body to break down excess fat and use it as fuel instead of glucose, which is called ketogenesis. Recent studies have investigated the positive effects of KD on treating both obesity and CVDs, due to its role in promoting ketogenesis and modifying many other metabolic pathways. Since KD is high in fats, assessing its potential effect on the lipid profile is necessary. Considering many studies on this topic, there has not been a comprehensive study to compile the evidence related to the use of the KD in relation to its impact on CVDs. Hence, we conducted this study to summarize the findings.

Method & material: We conducted a strategical search of PubMed, Scopus, Embase, ProQuest, and, Google Scholar databases using various related keywords such as Ketogenic diet OR KD OR Carbohydrate-Restricted diet AND, cardiovascular diseases OR CVD OR cardiovascular abnormalities, AND lipid profile OR dyslipidemia from inception to April 2023. The inclusion criteria were all randomized clinical trial (RCT) in either English-language journals or conference publications on adults with CVD who followed the ketogenic diet. We applied Critical Appraisal Skills Program (CASP) checklist to assess the quality of included articles.

Result: Out of 329 articles found in our research, only 6 studies had eligible criteria. Studies reported that cutting carbohydrates is associated with lower total cholesterol, triglyceride levels, and increase high-density lipoprotein (HDL). But the results in the level of LDL-C were contradictory. According to a trial of 31 obese individuals, following a KD for 56 weeks was associated with a drastic decrease in total cholesterol, LDL-C, and, triglycerides, whereas HDL cholesterol increased. The KD reduces blood lipids by both lowering insulin levels and enhancing fat catabolism. Further, the KD increases the size and volume of LDL-C particles, which is considered to reduce the risk of CVD. The KD also inhibits cholesterol biosynthesis by reducing B-hydroxy B-methylglutaryl-CoA (HMG-CoA) reductase expression, and reducing insulin levels.

Conclusion: This study indicated that a short-term ketogenic could improve the CVDs and lipid profile. However, more trials are advised for longer periods of intervention to have a conclusive conclusion.

G-1190

Investigating the Relationship Between Covid-19 Disease and the Occurrence of Diseases Related to Hypothyroidism: A Review Article

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Introduction: Corona disease is a respiratory disease caused by the Covid-19 virus. The pathogenicity of Corona virus in humans is caused by the ACE2 receptor, which is abundantly found in the follicular cells of the thyroid gland. The most common reversible functional disorders of the thyroid gland during Covid-19 and after are low T3 syndrome and; non-thyroid disease syndrome (NTIS. In this review, we briefly examined the direct and indirect effects of SARS-CoV-2 on the thyroid gland using published findings.

Method & material: This Systematic review article was written in 2023 using the keywords Covid-19, SARS-CoV-2, Thyroid, Hypothyroidism, ACE2 and their Persian equivalents. Among the 296 primary studies, 20 articles were included in the final analysis with filters that identify only studies published from 2020 to 2023 by searching these keywords and the title/abstract of the specific literature in PubMed, Google Scholar, and SID databases.

Result: The expression of angiotensin converting enzyme 2(ACE2) in the hypothalamus, pituitary gland, and thyroid gland makes these areas an important target for virus entry and the occurrence of disorders such as T3 syndrome, which is probably indirectly through increased inflammation due to the high level of inflammatory factors such as tumor-necrosis-factor-alpha (TNF-α) and interleukins (ILs) like IL6 and the occurrence of autoimmune disorders. Also, the results of real time PCR in gland follicle tissue indicate the direct role of the virus in pathogenesis. The data of 1160 patients showed that the prevalence of thyroid hormone changes in patients with Covid-19 was significantly higher than in control groups and there is a positive correlation between low mean T3 and clinical severity of Covid-19.

Conclusion: Due to the high sensitivity of the thyroid gland to the body's homeostasis, the observation of cases of hypothyroidism and low T3 among patients with Covid-19 is probably due to the hypothalamus-pituitary-thyroid axis with the virus, cytokine storm, direct infection of the gland and cell damage caused by the response It is safety. Therefore, in people suffering from Corona, it is necessary to check the thyroid gland if abnormal hormone levels are observed.

G-1191

The degree of readiness to pass from university to work in nursing students of Yazd University of Medical Sciences

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Introduction: Today, scientific centers and universities are responsible for training specialists in various fields and teaching students the necessary skills to prepare them to enter the labor market. The entry of students from universities and scientific centers into the job market related to their field is conditional on having the abilities and characteristics that some of them have learned during their studies. Therefore, considering the importance of preparing to enter the labor market for students of any field of study, especially those related to health-medical services such as nursing, the employment of students and their activities in the fields related to their field of study, as well as the role of health-medical forces in promoting health and Health of individuals and society. The present study was conducted with the aim of determining the level of preparation for entering the labor market in nursing students of Yazd University of Medical Sciences

Method & material: The present descriptive-cross-sectional study was conducted with random sampling method in 2022. In this study, 171 nursing students of Shahid Sadoughi University of Medical Sciences, Yazd participated. In order to collect data, the questionnaire of passing from the university to the labor market and the questionnaire of demographic information were used. Data analysis was done with SPSS version 22 statistical software and descriptive statistics and independent t statistical tests and analysis of variance with a significance level of 0.05.

Result: The average score of the transition from university to work of all participants was obtained (115.38±23.17). The highest score was related to the area of curiosity of transition (34.09±8.71) and the lowest score was related to the area of confidence in transition from university to work (21.72±4.80). is. There was no statistically significant relationship between any of the students' demographic characteristics and the passing grade from university to work (P0.05)

Conclusion: The results of the study show that the level of readiness of students to transition from university to work is average. Typically, nursing students enter university with a career path in mind. Many students choose nursing because it provides a fast track to employment. Therefore, if students graduate and enter the nursing profession before developing a sense of identity as a nurse, they may have low job satisfaction and high intention to leave the job

G-1192

The effect of Plantago major plant on obstetric and gynecological bleeding: a systematic review

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Introduction: Obstetric bleeding is one of the most important causes of death and severe complications of pregnancy and childbirth in the world and in Iran. Due to the side effects caused by the use of chemical drugs, the use of medicinal plants and traditional treatments have gained special importance. Plantago major plant is one of the recommended medicinal plants to stop bleeding. The present study was conducted with the aim of the effect of Plantago major plant on bleeding in women and obstetrics: a systematic review.

Method & material:In this study, the articles published in the period 2000-2023 regarding the effect of Plantago major on women's bleeding and obstetrics in the databases of Science of Web, Google Scholar, PubMed, Cochrane library using the keywords Menstrual bleeding, hemorrhage, postpartum hemorrhage) (Plantago major OR plantago) were investigated. Combined studies were not considered. In order to evaluate the quality of the studies, the Jadad scale was used and data analysis was done qualitatively.In this review study, out of a total of 1297 study results, 4 studies were included in the systematic review according to the inclusion criteria. Plantago major was used in 4 studies. Based on the results obtained in all the studies, a positive effect of Plantago major plant in different forms of vaginal suppositories, rectal suppositories and syrup was reported in the treatment of menstrual and postpartum bleeding.

Result: The results of studies showed that Plantago major plant is as effective as mefenamic acid on the intensity of menstrual bleeding. Of course, in a study, Plantago major was more effective than mefenamic acid. Also, in the field of post-partum bleeding, Plantago major has been effective in reducing post-partum bleeding compared to oxytocin

Conclusion: It seems that the growth of Plantago major plant can be effective in the treatment of women's bleeding and obstetrics. However, judging the definitive effect of these interventions definitely requires larger studies.

G-1193

The psychology of the work environment and the effect of color on it; A systematic review

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Introduction: The design of the work environment should be such that it creates an attractive, calming and stress-free environment for employees so that they can achieve proper concentration and accuracy[1].In the discussion of environmental psychology, color plays a very important role and has a great impact on human perception, so it should be considered in interior design, especially in the work environment[2].Considering the importance of this issue, the aim of this study is a systematic review on the effect of color in the work environment.

Method & material: In this study, through a systematic review, articles published in scientific databases PubMed, Scopus, Google Scholar with the keywords of "Color perception", "Color psychology", "Color effect", "Mental health" and "Workplace" were searched in the title of articles without time limit. In this study, the articles related to the Persian language in this field were removed due to the limited number, and the focus was on English research articles published in international publications. At each stage, the articles searched in each database are entered into the Endnote software and the information extracted from them (including the year and authors' names, study design, materials and methods, participants, color samples and evaluations) were entered into the prepared database.

Result: First, 328 articles were identified from the aforementioned databases, among which 116 articles met the inclusion criteria. Exclusion criteria included review articles, interventional articles, qualitative studies, and studies without a proper research team, and a total of 58 articles were evaluated as eligible. The results showed that 18 studies focused on color preference,23 studies on mood and emotions analysis,5 studies on health outcomes and 12 studies on the impact of workplace color on employee productivity. Most studies focused on studying warm versus cool colors. Warm colors were usually red, orange, yellow and cold colors were often blue and green. The evidence of the effects of color in the workplace was evaluated in three groups: mood and emotions, physiology and well-being, and work-related outcomes, and the results showed that color has a great impact on emotions, well-being, and performance.

Conclusion: The results of this study showed that color has a great impact on human perception and behavior (especially emotions and mood, stress and well-being, performance and creativity) and using appropriate color in the work environment can increase positive mood and higher efficiency. Therefore, it is important to have information about the impact of color differences in the workplace on experts and officials in this field.

G-1194

Investigating the relationship between caregiving pressure and quality of life in caregivers of elderly patients with stroke in Qazvin city in 2021

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Introduction: Stroke is the second most common cause of death and the third leading cause of disability worldwide. Caregivers are a group of people who face a decrease in the quality of life due to the high pressures of caring; Therefore, the present study was conducted with the aim of determining the relationship between caregiving pressure and the quality of life of caregivers of elderly patients with stroke.

Method & material: This cross-sectional descriptive study was conducted on 79 home caregivers of elderly stroke patients living in Qazvin city in 1400. Caregivers were selected as available among the caregivers of elderly patients diagnosed with stroke admitted to the neurology department of Bo Ali Hospital within 1 to 6 months before the study. The criteria for entering the study was to be at least 18 years old and take care of an older patient for at least one month. The data collection tool included the questionnaire of demographic information, Zarit care pressure and quality of life SF36, which was completed by the caregivers. Data were analyzed using SPSS version 23 software and using descriptive statistics and Pearson correlation test.

Result: The average age of caregivers was 46.16 ± 11.32 years in the age range of 24 to 78 years. Most of the caregivers participating in the study were female (52 people, 61%) and married (65 people, 67%). The amount of care pressure was average (27.47 ± 11.37) and their quality of life was higher than average (63.47 ± 14.41). The results of Pearson's correlation test showed an inverse and significant relationship between caregiving pressure and quality of life (r = 0.902, p0.001) and mental and emotional (r = 0.637, p0.001). So that with the increase in caregiving pressure, the quality of life of caregivers of these patients decreased both physically and psychologically.

Conclusion: The results of the study showed that caregiving pressure has a negative effect on the quality of life of caregivers; Therefore, in order to increase the quality of life and reduce the burden of caregiving, it is recommended to implement interventions and supports based on the empowerment of caregivers.

G-1196

Emerging roles of exosomal miRNAs in the development of Acute myeloid leukemia

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Introduction: Acute myeloid leukemia (AML) is a deadly hematologic malignancy characterized by uncontrolled growth of immature myeloid cells. The last two decades of genome-scale research have revealed a complex molecular picture of AML that governs disease development. Recent studies have shown that gene regulatory networks in AML may be influenced by microRNAs (miRNAs/miRs) in exosomes derived from leukemic cells or their bystander cells. Consequently, exosomal miRNAs are involved in the pathophysiology of AML. Hence, we performed the first systematic review to evaluate the potential roles of exosomal miRNAs in AML.

Method & material: Eligible studies were identified from several databases including PubMed, Web of Science, and Scopus (up to June 2023). Articles were identified using the keywords "(Acute myeloid leukemia) or (Acute myeloblastic leukemia) or (Acute myelocytic leukemia) or (Acute myelogenous leukemia) or AML," and "(exosomal miRNA) or (exosomal microRNA) or (exosomal miR)" without any limitations. Further, the reference lists of the identified publications were searched for additional relevant studies. Subsequently, search results were narrowed based on specific inclusion criteria (studies must be about AML and exosomal miRNAs, as well as to evaluate the roles of exosomal miRNAs in AML) and exclusion criteria (diseases other than AML and no analysis of exosomal miRNA).

Result:A total of 108 articles were reviewed using the search strategy. Of these, 36 duplicate studies were excluded. After removing 35 records, including reviews, retracted articles, meeting abstracts, editorials and letters, 37 remained. Among these, 12 records were discarded after full-text evaluation. Eventually, 20 in vivo/in vitro studies met the predefined selection criteria and were included in this study. The results of this study will shed light on exosomal miRNAs profile implications in nearly all aspects of AML disease, including (a) tumor growth (miR-7977 and miR-188-5p), (b) tumor suppression (miR-7-5p, miR-124-5p, miR-23b-5p and miR-222-3p), (c) hematopoiesis suppression (miR-548ac, miR-4532, miR-155 and miR-150), and (d) chemoresistance (miR92, miR155, miR375 and miR-10a). In addition, exosomal miRNAs could be non-invasive diagnostic (miR-26a-5p, miR-101-3p, miR-23b-5p, miR-339-3p and miR-425-5p) or prognostic (miR-532, miR-10b, miR-125b, miR-21, and miR-1246) biomarkers. Furthermore, exosomal miRNAs protein interaction pathways were identified, which could be used to propose precision therapies.

Conclusion: This systematic review highlights the need to develop novel exosomal miRNA-based diagnostic and prognostic biomarkers for AML. In addition, exosomal miRNAs serve as promising tools for therapeutic interventions and predicting the response to treatment. Hopefully, efforts to therapeutically manipulate exo-miRNAs could improve disease outcomes.

G-1197

Education through telemedicine and its impact on caregivers

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Introduction: Recently, it is common for patients and families to use the Internet and smartphones to receive health information. Improving the quality of life of patients and increasing their independence after receiving interventions and educational content through telemedicine has been proven so far. The purpose of this study is to report the impact of telemedicine education on caregivers.

Method & material: This quasi-experimental study was conducted in 2021, using an educational content based on a mobile application, with up-to-date valid medical, nursing and rehabilitation evidence, which includes improving the awareness of patients and families on emotional rehabilitation, social rehabilitation, physical rehabilitation, issues related to nutrition, excretory system, balance, corrective movements and relaxation, which was approved by three Nursing faculty members of Iran University. In the special section Talk to Families, the challenges of patient care, companionship in treatment, monitoring symptoms, adherence to treatment, preparing the caring environment, adjusting diet, emotions and feelings, principles to conserve energy, reach Personal tasks and housework along with caring for a patient were described. After obtaining the necessary permits, 77 qualified patients and caregivers who referred to neurology clinic centers, were studied for 12 weeks. The evaluation of this protocol was done by recording the statements of caregivers, who were first-degree relatives, through virtual networks.

Result: Caregivers' statements indicated the positive effect of the role of raising awareness in adherence to treatment and hope for the future. Other caregivers' reports included satisfaction with the principles of planning, energy conservation and a better communication with the patient, which were considered to be in the context of improvements in the patient's independence. Detailed examination of the impact of telemedicine care on caregivers with specific tools such as quality of life and care burden tools can be investigated in future studies.

Conclusion: The use of telemedicine by therapists and researchers, as a means of providing information, services and education to patients, can be effective on the quality of life of families as well.

G-1198

Application of artificial intelligence techniques in the management of mesothelioma: a systematic review

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Introduction: Artificial intelligence is increasingly used in healthcare, especially for diagnosis, and its importance will continue to grow [1]. One of the fields in which artificial intelligence methods have a significant impact is the early diagnosis and management of diseases, which can be very complex and risky in the early stages [2]. This study investigated the artificial intelligence studies in the management of mesothelioma.

Method & material: The current systematic review was conducted until April 24, 2023, by searching for relevant keywords in PubMed, Scopus, and Web of Science databases. The first group of keywords included mesothelioma, malignant mesothelioma, and malignant pleural mesothelioma; and the second group of keywords included decision support techniques, data mining, and artificial intelligence. The inclusion criteria included original and English-language papers that investigated the use of artificial intelligence algorithms in managing mesothelioma disease in the fields of prevention, diagnosis, and treatment. The title, abstract, and full text of the articles were reviewed by two researchers, and finally, the data were collected according to the aim of the study.

Result: Totally, 22 articles were included in the study. The findings revealed that the most application of artificial intelligence in the management of mesothelioma was in the fields of tumor diagnosis and classification (n = 18), prevention and prognosis (n = 4), and treatment or follow-up (n = 1). The artificial intelligence methods used were: different decision tree and random forest algorithms (n = 11), different neural network methods (n = 10), various statistical algorithms including regression and Bayes (n = 10), support vector machine (SVM) (n = 7), association rules (n = 3), and the nearest neighbor method (n = 2). Furthermore, in determining risk factors and selecting features, algorithms such as genetic algorithms, algorithms based on correlation, and neural networks were used.

Conclusion: The results showed that the most application of artificial intelligence in the management of mesothelioma was in the diagnostic field. Among the algorithms used in the management of this disease, the Support Vector Machine (SVM) algorithm has been used the most as a black box method, followed by tree algorithms as a step-by-step or white box method. Also, the evaluation of artificial intelligence algorithms in the studies obtained showed acceptable results.

G-1199

Investigating the relationship between vitamin C intake and oral cancer in adults, A review on evidence

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Introduction: Oral cancer can be caused by the growth of malignant cells in the mouth, lips, tongue, or cheek and tonsils. The evidence indicates a high rate of death from this cancer. Studies have shown that the intake of micronutrients was significantly related to the pathophysiology of oral cancer. Among the micronutrients, special attention has been paid to the dietary intake of vitamin C or supplement therapy. However, the findings seem contradictory in this regard. Therefore, the aim of this study is to review the available evidences on the relationship between dietary intake of vitamin C and incidence of oral cancer in adults.

Method & material: The systematic search was conducted in the online databases including PubMed, Web of science, Scopus and google scholar up to June 2023 without publication date or language restrictions. The following search terms were used for the systematic search: Vitamin C OR Ascorbic acid" and Oral cancer OR Oral malignancy. In this review, all clinical trial, cross-sectional, prospective and retrospective studies that investigated the relationship between vitamin C intake and Oral cancer were included in the evaluation.

Result: Out of the reviewed articles, 8 case-control studies and one cohort study were included in the present study. The total sample size of these studies was 45340 and the number of cases with oral cancer was 2600. 5 case-control studies showed that receiving optimal levels of fiber and antioxidants, especially vitamin C from daily consumption of fruits and vegetables, has an inverse relationship with the risk of oral cancer. However, other case-control studies did not show such an association. Also, such an inverse relationship was seen in the mentioned cohort study, and this inverse relationship is independent of smoking or drinking alcohol. On the other hand, studies showed that the dietary intake of vitamin C plays a better protective role against oral cancer compared to the supplementation therapy. In terms of serum and salivary levels of vitamin C, two case-control studies showed that the level of this vitamin is lower.

Conclusion: In general, the findings of the present study showed that there is an inverse and significant relationship between vitamin C intake and oral cancer, however, in order to confirm this protective effect, it is necessary to design more clinical trials in this field.

G-1200

The Impact of COVID-19 on Utilization of Chronic Disease Services: An Interrupted Time-Series Study in Iran

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Introduction: The present study aimed to evaluate the impact of the COVID-19 pandemic on the utilization of chronic disease services in Iran.

Method & material: An interrupted time-series (ITS) design was used to examine the utilization of services for chronic diseases such as COPD, asthma, type 2 diabetes, heart failure, and chemotherapy before and during the COVID-19 pandemic. Data were collected from 24 sites over a period of 24 months, spanning from March 2019 to March 2021.

Result:A total of 7,039,378 services were provided during the study period, with 51.92% of services provided to women and 62.73% to individuals over 65 years old. The monthly utilization of services decreased significantly during the COVID-19 pandemic, ranging from 13.91 (95% CI = -21.73, 6.10, P = 0.001) for chemotherapy to 606.39 (95% CI = -1040.72, 172.06, P = 0.009) for heart failure services per 100,000 population. A decrease was also observed in COPD services, with 15.28 fewer services provided compared to the period before COVID-19. However, the monthly utilization trends of asthma, type 2 diabetes, and chemotherapy services increased significantly (P 0.05).

Conclusion:he COVID-19 pandemic has had a significant impact on the utilization of chronic disease services in Iran. Although chronic diseases are a risk factor for more severe COVID-19, the decrease in diagnostic, prevention, and treatment services during the pandemic has complicated the issue.

G-1201

A Comparison of the Chlorhexidine and Sodium Bicarbonate Mouthwashes Effects on COVID-19-Related Symptoms

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Introduction: Some studies have reported that mouthwashes can decrease the viral load in the mouth, but there is not much information about the effectiveness of mouthwashes on COVID-19. The present study was conducted to compare the impact of using two types of mouthwash, Chlorhexidine and sodium bicarbonate, on COVID-19 symptoms and infection.

Method & material: The present 3-group, double-blind, clinical trial examined 116 operating room nurses and anesthesia personnel of certain hospitals of Isfahan University of Medical Sciences, Isfahan, Iran. The research participants were randomly assigned to 3 groups, intervention group 1 (Chlorhexidine mouthwash), intervention group 2 (sodium bicarbonate mouthwash), and the control group (placebo). Mouthwash was used twice a day (morning and night) for 2 weeks. The participants were monitored in terms of COVID-19-related symptoms for 4 weeks, from the first day of mouthwash use.

Result: Fisher's exact test indicated a significant difference between the Chlorhexidine and control groups in terms of the onset of COVID-19-related symptoms ($p = 0.02$). There was no significant difference in the symptoms of COVID-19 between the groups according to the chi-square test, but the groups were significantly different in terms of all symptoms at a 4-week interval ($p = 0.04$). Furthermore, headache was less observed in the Chlorhexidine ($p = 0.007$) and sodium bicarbonate ($p = 0.03$) groups compared to the control group, and it also showed a significant change. The total number of symptoms and rates of infection were lower in the Chlorhexidine group compared to the sodium bicarbonate and control groups.

Conclusion: The use of 0.2% Chlorhexidine mouthwash can decrease the onset of COVID-19-related symptoms in healthcare workers. Additionally, this mouthwash can partially reduce the symptoms of this disease in comparison with the control and sodium bicarbonate groups. Chlorhexidine mouthwash is recommended as a method of preventing COVID-19 symptoms, which pose serious challenges to healthcare workers.

G-1202

Factors predicting the mental health of students of the Faculty of Health and Paramedicine of Qazvin University of Medical Sciences

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Introduction: Mental health is one of the most important factors in the development of humans, and it is important to pay attention to it, especially in medical students, in order to provide high quality services to patients. The present study was conducted in order to determine the level of mental health and its predictive factors in the students of health and paramedical faculties of Qazvin University of Medical Sciences.

Method & material: In this cross-sectional study that was conducted in 2014, 110 students of health and paramedical faculties were selected by stratified sampling and in a simple random manner based on the entry criterias. The data collection tool included personal, educational information and the Persian version of the Goldenberg General Health Questionnaire (GHQ-28) which includes 28 questions. Higher scores in this questionnaire indicate lower mental health. Data analysis was done using SPSS version 16 and Chi-2, McNemar and regression statistical tests.

Result: The average mental health score of the students participating in the study was 31.05 ± 9.24 and 79.6% of them obtained a mental health score higher than the cut-off point. The highest and lowest values were reported in disturbance in the dimension of social functioning

12.34 ± 3.78 and depression dimension 4.59 ± 4.55, respectively. Also, there was a significant relationship between marital status (p0.02), academic average last semester (p0.000) and interest in the field of study (p0.02) with mental health. The regression test showed that interest in the field of study (p0.003) predicted the mental health of these students.

Conclusion: Considering the low level of mental health of a significant percentage of students in this study, it is necessary for student counseling centers, counselors, professors and specialists to devise plans in the field of identifying, promoting, preventing and treating psychological disorders of these students.

G-1203

Changes of thyroid hormones in covid 19 patients

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Introduction: The coronavirus disease 2019 (COVID-19) has caused significant morbidity and mortality worldwide. Thyroid hormones play a key role in regulating metabolism and the immune system. However, the prevalence of thyroid dysfunction (TD) and its association with the prognosis of COVID-19 have yet to be determined. In this study, we seek to investigate the incidence of euthyroid sick syndrome (ESS) and the relationship between thyroid hormones and inflammatory markers in COVID-19 patients.
Method & material: According to the census of patients with COVID-19 who were referred to the emergency room of Dr. Ganjavian Hospital in 2022, according to the treatment method, they were divided into two groups, inpatient and non-inpatient, after applying the age range of 15 to 75 years, consent to participate. In the study, patients without underlying thyroid disease were included. Thyroid hormones were measured by the electrochemiluminescence method. ESS was defined by FT3 2.3 pg/ml and low or normal TSH level. Also, the level of significance in the present study was considered 0.05.
Result: Of 133 patients with mild to moderate COVID-19, 57 patients (42.85%) had euthyroid sick syndrome, which generally had lower TT3 (1.30±0.33 nmol/L), TT4 (109.64±8.94 nmol/L), fT3 (4.45±1.36 pmol/L), and fT4 (18.36±4.45 pmol/L) than the normal range. The mean serum level of thyroid hormones and its changes had a statistically significant inverse relationship with CRP level as an inflammatory factor and disease severity in COVID-19 patients (P value 0.05).
Conclusion: Considering that in different clinical stages of patients with covid-19, the inflammatory response may have different roles in the pathogenesis of the euthyroid syndrome. It is recommended that thyroid hormone testing be considered for COVID-19 patients. Thyroid profile assay may become a simple tool for stratified managing patients with severe COVID-19.

G-1204

Clinical Indications of Chest CT in COVID-19 Penumonia Patients: A Systematic Review

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Introduction: Emerging the newly coronavirus disease 2019 (COVID-19) has increased attentios toward the role of radiologic imaging, espesially chest computed tomography (CT) in diagnosis, screening and managment of the disease. However, evidence sugests explosive and unjustifiable use of this diagnostic tool in clinical settings. This is of particular concerns beaucase chest CT exposes patients to hazardous ionizing radiations and impose heavy economic burden to the healthcare system. This systematic review aimed to clarify the clinical indications of the chest CT in COVID-19 patients to enhance benefit-risk ratio.

Method & material: We searched the PubMed, Scopus and Web of Science databases using following search terms: computed tomography, Chest, SARS-CoV-2, COVID-19 and indication. all articles published in English until 19 February 2023 in the field of COVID-19 were examined. Articles were obtained by searching databases using the keywords. Also, the world's most reliable websites in the field of health, such as the World Health Organization and the Center for Disease Control and Prevention (CDC), were used to get the latest statistics about this disease. Information related to pathogenesis, epidemiology, clinical characteristics, laboratory diagnosis, and radiological diagnosis were extracted from the above articles and websites. Findings In the initial search, a number of 838 articles were extracted, after removing the duplicates and evaluating the title and abstract, 97 articles were selected. After checking the full text of the articles, finally, 26 articles met the necessary conditions to participate in the present study

Result: According to the best evidence, the patient's clinical condition may be the most reliable factor for deciding on chest CT scanning. In summary, the common indications for the use of chest CT in COVID-19 subjects include:1. Respiratory symptomatic patients with false-negative RT-PCR or when RT-PCR is not available. 2. Patients admitted due to COVID-19 with suspected complications or deterioration of respiratory status. 3. COVID-19 cases with fever lasting more than 5 days despite treatment measures. 4. To assess the severity of lung involvement or pulmonary sequel including fibrosis in patients with a known COVID-19 infection. 5. To evaluate for pulmonary embolism when clinically and laboratory suspected.

Conclusion: Judicious use of chest CT should be a part of patient's care. Unjustified chest CT scans can expose patients to hazardous ionising radiation and impose additional economic costs on the healthcare system, whereas it will not add something to the correct assessment of the diseases.

G-1206

The effect of chamomile supplementation on glycemic control in adults: A systematic review and meta-analysis

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Introduction: Chamomile and its products have been considered as potential phytotherapeutic agents for several conditions, such as cardiovascular, hepatic and gastric diseases, among others. Until now, the effects of chamomile administration on glycemic indices have not been sufficiently appraised. The present study evaluated the effects of chamomile administration on the glycemic indices such as fasting blood glucose (FBG), fasting insulin, homeostasis model assessment of insulin resistance (HOMA-IR), and hemoglobinA1C (HbA1C).

Method & material: Following databases were searched for eligible randomized controlled trials (RCTs) published from inception to June 2023: PubMed, EMBASE, Web of Science, Google scholar, and Cochrane Library. Weighted mean differences (WMD) were pooled using a random-effects model. Heterogeneity, sensitivity analysis and publication bias were reported using standard methods. The present study has been performed by a grant from the Student Research Committee, Isfahan University of Medical Sciences (grant number: 1402174).

Result: Of 567 studies identified, four were included in the meta-analysis. The dose of intervention ranged from 400 to 2500 mg/day and the duration of intervention ranged from 4 to 8 weeks. Pooled analysis of seven RCTs, demonstrated that the administration of chamomile led to a significant reduced FBG (WMD: -0.69 mg/dl, 95% CI: -1.35, -0.19; p = 0.012, I2 = 12.5%), hemoglobinA1c (HbA1c) levels (WMD: -0.96, 95% CI: -1.45, -0.35; p=0.043, I2 = 42.2%). However, HOMA-IR and fasting insulin levels did not alter after the administration of chamomile. Subgroup analysis revealed that the duration of chamomile supplementation could be sources of between-study heterogeneity.

Conclusion: To sum up, chamomile supplementation has a significant lowering effect on glycemic indices such as FBG and HbA1c. However, data on the adverse effects of chamomile are limited, and more safety data would be required to evaluate whether it would be safe for long-term use.

G-1207

6Mercaptopurine Monitoring by Smartphone Colorimetric Sensor Based on Silver Nanoprisms Shape Transformation

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Introduction: The thiopurine analog, 6-Mercaptopurine (6-MP), is a cancer therapy medication. It incorporates triphosphate into RNA and DNA and prevents purine nucleotide synthesis. This medication carries notable adverse effects including hepatotoxicity, immunosuppression, and myelosuppression. Therefore, it is imperative to regularly monitor the dosage of this medication in the human body. Unfortunately, currently used methods are time-consuming and expensive. Hence, the creation of a sensitive, and cost-effective approach for assessing 6-MP would be of noteworthy interest. Nowadays, smartphones play a considerable role in our lives so we can see their footprint everywhere. We developed a cheap and convenient colorimetric method using smartphones to measure 6-MP concentration

Method & material: AgNPrs were synthesized through seed-mediated synthesis method by adding NaBH4 into solution containing, ⟦AgNO⟧_3, sodium citrate, and PVP in ultra-pure water. The formation of AgNPrs resulted in the manifestation of blue color in the solution. To measure 6-MP, 500µL of AgNPrs,25µL Glycine buffer (0.1 M, PH=10) and different amount of 6-MP were incubated in the test tube for 5min. Then, 15 µL I^-0.5 mM was added into the tube and the final volume was reached 1mL. After 5 min, the solution color change was measured via recording RGB amount by smartphone application Color meter Free and the data was used to draw linear calibration curve.

Result:TEM images reveal the triangular shape of AgNPrs. Additionally, three SPR characteristic peaks of AgNPrs appeared at the absorption spectrum of AgNPrs in the 330, 490 and 752nm. the experimental solution color was changed from blue to purple by adding I^- as a result of shape transformation of AgNPrs. the surface energy and activity of Ag atoms at the corner of AgNPrs is high. Therefore, corner site placed Ag atoms can be easily dissociated by I^-, leading to the morphological transformation of AgNPrs. It was noted that the inclusion of 6-MP in solution returns color to blueish. The solution color alteration from purple to blue was proportional to 6-MP concentration. Indeed, the affinity of Ag atoms to sulfur (in the 6-MP structure) is higher than I^-, resulting in the formation of Ag-S bond at the corner sites and protection of AgNPrs from etching by I^-.

Conclusion: Our colorimetric sensor based on smartphones can measure 6_MP concentration ranging from 0.1 µM to 10 µM. Thus, it shows acceptable and cost-effective results. This technique can be used for 6-MP analysis in pharmaceutical and bio-logical samples.

G-1208

Evaluation of the educational environment of Sanandaj dental faculty from the point of view of Sanandaj dental students based on the DSLES model

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Introduction: Education in the field of dentistry needs special attention due to the large volume of practical units and the extensive dimensions of learning skills. Based on this, the aim of the present study is to evaluate the educational environment of the Faculty of Dentistry in Kurdistan from the students' point of view based on the DSLES questionnaire.

Method & material: This research is a descriptive-analytical cross-sectional study based on which all students were selected by census. DSLES questionnaire was used to collect research data, and the mentioned questionnaire was distributed among the research samples. STATA software version 12 was used for data analysis. After estimating the concentration and dispersion indices for each of the sub-scales, the non-parametric Mann-Whitney and Kruskal-Wallis tests as well as Spearman's correlation coefficient were used to check the study hypotheses. A significance level of 5 was considered.

Result: The average score of interest in dentistry is 23.03, which has the highest average score among the measured variables. Other variables, according to the assigned score, are the organization of the educational program, attention to students' concerns, suitability of educational activities with educational goals, relationships between students, emotional atmosphere, development of extracurricular activities and flexibility of the educational program or the averages, respectively, 20.02 , 14 / 52, 14 / 85, 8 / 27, 8 / 67, 6 / 03, 6 / 16 (the order is written based on their suitability according to the minimum and maximum score they could get in their exam.) .In the study conducted, the relationship between emotional atmosphere and gender, flexibility of educational program with marital status, interest in dentistry with residential status, relationship between students with residential status, attention to students' concerns with residential status, flexibility of educational program with age.

Conclusion: In general, it can be stated that the educational environment investigated in this research was a suitable educational environment that had a good evaluation in the fields of interest in the field, organization of the educational.
program and attention to the students' concerns, and in the fields of emotional atmosphere, development of extracurricular activities and the flexibility of the educational program requires planning to improve these areas.

G-1209

The importance and level of responsiveness of the health system from the perspective of people with disabilities: A study from western Iran

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Introduction: Responsiveness is one of the ultimate goals of health systems. The purpose of this study was to investigate the importance and level of health system responsiveness from the perspective of people with disabilities in Kurdistan Province, Iran.

Method & material: This descriptive cross-sectional study was conducted in 2020 in Kurdistan province among the population with disabilities. Out of the sample size of 1067 people, 889 and 520 people had used outpatient and inpatient services, respectively, for which the WHO response questionnaire was completed. Data were analyzed using descriptive statistics and one-way analysis of variance using SPSS-18 software.

Result: The dimensions of Prompt attention (97%) and social support (81%) were the most important and the least important for the respondents, respectively. In the inpatient ward, social support with 80% had the highest performance and Communication with 59% had the lowest performance, and in the outpatient ward Dignity with 60% and Communication with 46% had the highest and lowest performance, respectively. Responsiveness performance was significantly different based on the type of ownership of the centers for inpatient services in the dimensions of Communication, Autonomy and Prompt attention (p 0.05).

Conclusion: Responsiveness of the health system is very important for people with disabilities. The performance of the health system in some aspects of Responsiveness, especially for outpatient services, is low and requires serious attention of policy makers and managers of the health system. Designing targeted interventions to increase the level of Responsiveness of the health system is suggested based on the findings of this study.

G-1210

Deciphering the Functions of miR-143 and miR-145 in Colon Cancer: A Systematic Review

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Introduction: Colon adenocarcinoma (COAD) is a malignancy arising from the epithelial cells of the colon, representing approximately 80% of all malignant neoplasms affecting the large intestine. In the realm of oncology, biomarkers play a crucial role in elucidating the distinctive characteristics of specific cancer and exert a significant influence on tumor response to treatment and early diagnosis. MicroRNAs, due to their involvement in fundamental biological mechanisms, have emerged as potential cancer biomarkers. This study presents a comprehensive review investigating the potential functional roles of miR-143 and miR-145, along with their potential as biomarkers in the context of COAD.

Method & material: In this study, we conducted a comprehensive search of the PubMed, Scopus, and Google Scholar databases using the following keywords: Colonic Neoplasms, miRNA-143, hsa-miR-143-3p, miR-143hsa-miR-145-3p, miRNA-145, and miR-145from 2007 to 2023. Only articles that met our inclusion criteria, which involved experimental validation using human tissues, cell lines, or mice models, were included in this study. Out of a total of 96 articles, were deemed appropriate for the purpose of data extraction.

Result: Previous investigations have established a consistent downregulation of miRNA-143 and miRNA-145 in COAD, implying their potential involvement in cancer pathogenesis. These miRNAs are recognized as tumor suppressors, exerting regulatory control over key tumor progression genes such as K-Ras. Additionally, miRNA-143 has been observed to target c-Myc, ERK5, PAK4, DNMT3A, while miRNA-145 targets RREB1, MAPK1, MEK2, API5I, RS1, MYO6, and FSCN1. These findings highlight the plausible role of these miRNAs in governing the proliferation, apoptosis, and survival of colon cancer cells.

Conclusion: The down-regulation of miR-143 and miR-145 in COAD exerts a significant impact on key cellular signaling pathways, thereby presenting a novel avenue for the development of therapeutic interventions and diagnostic biomarkers.

G-1212

Resilience among nurses and its related factors in hospitals affiliated with Shahroud University of Medical Sciences: A cross-sectional study

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Introduction: Resilience is one of the most critical human abilities, which expresses the capacity of a person to adapt positively and successfully to challenging life conditions which facilitates interactions between a person and the environment. It should be remembered that professional nursing is exhausting and full of stress and challenges. Therefore, nurses should have enough personal resilience to provide continuous nursing care to patients efficiently while maintaining their health in complex working conditions. Therefore, this study was conducted to determine nurses' resilience level and its related factors.

Method & material: This cross-sectional study was conducted on 320 nurses in hospitals affiliated with Shahroud University of Medical Sciences. The convenience sampling method selected individuals with a bachelor's degree in nursing and above and at least one year of work experience in the hospital. Data collection tools included Sherer's general self-efficacy scale and Connor and Davidson's resilience scale. The data were analyzed using descriptive statistics and inferential tests (independent t-test, one-way analysis of variance, Pearson's correlation coefficient, and multiple linear regression using the Enter method).

Result: In this study, nurses experienced low levels of resilience (63.31±15.82 out of 100) and high levels of self-efficacy (62.86±9.62 out of 85). Examining the subscales of resilience showed that the highest mean scores of the items correspond to the subscale of spiritual effects (2.78±0.88 out of 4), and the lowest mean scores of the items correspond to the subscale of trust in individual instincts and tolerance of negative emotions (2.36±0.69 of 4). Also, a positive and significant correlation was observed between nurses' resilience and self-efficacy (P0.001 and r=0.55). Satisfaction with the personal protective equipment of the hospital and the feeling of security against COVID-19 were also mentioned as factors related to the higher resilience and self-efficacy of nurses (P0.05).

Conclusion: According to the results of the current study, providing a safe environment with adequate personal protective equipment plays a crucial role in the positive adaptation of nurses to the problematic conditions of the work environment. Holding resilience skills training workshops and increasing psychological capabilities to improve nurses' resilience is also recommended to increase their resilience and adapt better to critical and unpredictable conditions.

G-1213

Evaluation of the anti-melanogenic effect of aqueous and hydroalcoholic extracts of Nasturtium officinale aerial parts on B16F10 melanoma cells.

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Introduction: In this study, the anti-pigmentation and anti-melanogenic properties of Nasturtium officinale(watercress), a herb used in ancient medicine, were investigated by examining the effect of its aqueous and hydroalcoholic extracts on the inhibition of cellular and mushroom tyrosinase enzyme and consequently the inhibition of melanin production in B16F10 murine melanoma cells.

Method & material: First, aerial parts of N. officinale was dried, powdered and extracted with distillated water and Ethanol (7:3) using the maceration method. The phenolic content of the extract was measured using the Folin-Ciocalteu's method. The safety evaluation of freeze-dried aqueous and hydroalcoholic extracts on B16F10 cells was determined using the MTT assay. Then, the melanin content of B16F10 cells, as well as the inhibitory effects on mushroom and cellular tyrosinase enzymes, were determined. Finally, the results were analyzed using ANOVA test

Result: The aqueous and hydroalcoholic extracts did not show significant toxicity on B16F10 cells compared to the negative control. Furthermore, there was no significant difference in their cytotoxic effects on the mentioned cell line. These two extracts led to the inhibition of cellular and mushroom tyrosinase, as well as a reduction in melanin levels in B16F10 cells in a concentration-dependent manner. Finally, the total phenolic content in the aqueous and hydroalcoholic extracts was determined to be about 14 and 30 milligrams per gram of gallic acid, respectively.

Conclusion: This laboratory confirmation study provides evidence for the skin brightening effects and reason of historical use of this plant as a skin anti-melanogenic agent Due to its safety and lack of toxic effects on skin cells, it can be used in the formulation of skin brightening products.

G-1215

Nurses' professional commitment in COVID-19 crisis: A qualitative study

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Introduction: Professional commitment is an important factor in employee performance. The outbreak of covid-19 has severely affected the working conditions of nurses. Several factors can affect the professional commitment of nurses in this situation. Therefore, this study was conducted with the aim of discovering the experiences, attitudes, views and perceptions of nurses' lives regarding professional commitment and factors affecting it in the Covid-19 crisis

Method & material: This qualitative study was conducted using the content analysis method in 1400. 25 nurses working in the Covid-19 wards were interviewed using semi-structured in-depth interviews. The criterion for entering the study was employment for at least 3 months in the Covid-19 departments. Sampling was done by purposive sampling method. The interview was conducted in the nurses' rest room and on average, each interview took between 60 and 100 minutes. Conventional content analysis was used to analyze the data.

Result: After analyzing the interviews, 5 main themes of the interviews were identified: participatory empathic commitment (including 4 sub-themes, loyal commitment (including 5 sub-themes), selfless commitment (including 5 sub-themes, Commitment with doubt and concern (including sub-theme 5) and Human commitment (including sub-theme 6).According to the statements of the majority of nurses, saving more people's lives was identified as the most important concept of professional commitment in caring for patients with Covid-19.

Conclusion: The results of this study showed that the Covid-19 crisis has caused major changes in the working conditions of nurses. These changes have also affected the concept of professional nursing commitment and revealed new concepts; Therefore, it is recommended to identify internal and external factors that can increase nurses' commitment to the nursing profession in critical situations.

G-1216

Challenges of AI usage in diagnosis of cardiovascular diseases at healthcare centers

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Introduction: Nowadays the positive applications of artificial intelligence i.e. AI in diagnosis and treatment of diseases and healthcare field is obvious to everyone. On the other hand, regarding the high prevalence of cardiovascular diseases in societies using new methods of diagnosis and treatment is a most but usage of these technologies is accompanied by its challenges and problems. The purpose of this article is to examine the challenges of AI usage in diagnosis of cardiovascular diseases.

Method & material: The current study is a narrative review based on articles published between 1390 – 1402 SH i.e. 2011 – 2023 AD. The google scholar search engine and PubMed, ScienceDirect, Magiran and SID data banks were used to find about 200 results from which 60 been selected based on their relevance with the article's subject. The main keywords used in researches were Artificial intelligence, Cardiovascular diseases, Challenges, Problems, Diagnosis.

Result: Based on studies done there are several challenges about AI including: the manner of importing mental information and transferring experiences, The manner of adding patients to the program in an accurate, correct and equal way, the fact that regularly updating the AI is required because of the rapid improvements of medical sciences and new achievements, data loss and its dispersion, lack of communication between patients' digital files and AI database which results in repetition and overloading the medical staff, the imagination of AI doing physicians' jobs which results in medics and cardiologists fear of losing their jobs to AI, lowering physicians' creativity and in long term while also lowering the medical liability among the medical staff in case of AI wrong diagnosis, specially about cardiovascular diseases noting cardiologists' low knowledge in AI field which ends in lack of trust, financial limits including the problems and challenges with AI itself

Conclusion: Noting the challenges and problems of using AI in diagnosis of cardiovascular diseases an accurate planning by officials is recommended to minimize these problems and issues as much as possible. Also, it is possible to increase the acceptance rate of AI usage among the medical staff by cultivating and teaching the pros of AI usage

G-1217

The Effects of Zinc Supplementation and Treadmill Exercise During Pregnancy on Prenatal Stress–induced Memory and Learning Deficits in Young Male Rat Offspring

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Introduction: Stressful prenatal circumstances have a significant impact on fetus development and may lead to a variety of neurological disorders later in life. One of the most significant of these alterations would be the negative consequences on central nervous system morphology and function which can eventually disrupt memory and learning skills. Physical or pharmacological interventions may be used to prevent or reduce the neurological deficits caused by prenatal stress (PS). Our study investigated the effects of prenatal physical activity and zinc supplementation on PS-induced memory and learning deficits in young male rat offspring at postnatal day (PND) 30.

Method & material: Pregnant rats were divided into 5 groups: control, stress, stress + exercise, stress + zinc, and stress + exercise + zinc. The stress groups were exposed to restrain stress for 5 consecutive days (G15-19). Rats in the exercise and zinc groups were subjected to either forced treadmill exercise (30 min/daily), zinc sulfate (30 mg/kg/orally), or both throughout the pregnancy and similarly exposed to the stress. At PND 30, the Morris water maze (MWM) test was used to assess memory and learning status in male offspring. Each of the pups was trained in the maze for 4 consecutive days and was then put to the test on the fifth day. The gene expression levels of brain-derived neurotrophic factor (BDNF) and glial fibrillary acidic protein (GFAP) were also measured in the hippocampus.

Result: The time spent to find the plate was used to evaluate learning and the time spent in the target area was used to evaluate memory. The results showed that both the exercise and zinc groups took less time to find the plate and spent more time in the target area compared to the stress group. BDNF levels showed a meaningful increase in the zinc supplementation group indicating its beneficial effect on PS-induced cognitive impairments in the offspring and the same was seen with the exercise group. Similarly, GFAP level was increased in both the zinc supplementation and exercise groups indicating their protective effects on neural glial cells.

Conclusion: Prenatal zinc supplementation and involuntary exercise improved PS-induced memory and learning deficits through modifications of BDNF and GFAP levels. These findings suggest the clinical importance of zinc and physical activity against PS-induced cognitive impairment.

G-1218

The effect of the planned participation of the patients companion in primary nursing care on chest pain in the special heart department of Razi Birjand Hospital in 1400

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Introduction: Hospitalization of patients in cardiac intensive care units is associated with negative outcomes such as chest pain, heart attack, and death. Therefore, this study was conducted with the aim of investigating the effect of the educational program of family participation in primary nursing care on chest pain in patients of the special heart department of Razi Birjand Hospital in 2021

Method & material: This study was semi-experimental research before and after with a control group. A total of 48 patients were randomly selected in a control group and 24 in the intervention group (4 people in each block). Together with the patient in the intervention group, they were allowed to be with the patient for 3 days for 30 minutes in a planned way and participate in their primary clinical care. In the control group, a routine follow-up visit was performed. Chest pain in both groups was measured at the beginning and on the third day of hospitalization with the McGill Pain Questionnaire. Data were analyzed with SPSS version 16 software

Result: The mean score of pain intensity before in the intervention group was higher than the control group, but no significant difference was observed between the two groups (p=0.313). But there was a significant difference between the mean pain intensity after the intervention in the two groups(p=0.03)

Conclusion: Using this program can significantly reduce the chest pain of patients. Therefore, it is recommended that the use of this method in special cardiac care departments to reduce the heart pains of this patient should be considered by the supervisors and heads of these departments.

G-1219

Determining the Role of Electronic Prescribing in Drug Access in the Covid-19 period: A Review Study

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Introduction: The pandemic of the COVID-19 has played a significant role in the evolution of electronic fields. In the field of health, some fields of electronic health, such as electronic prescribing and Telemedicine, have grown a lot after the COVID-19 pandemic. The first of this study was conducted with the aim of determining the role of e-prescribing in drug access during the outbreak of the COVID-19 crisis.

Method & material:: In this review, all articles published without time limit in three databases including Scopus, Web of Science, PubMed and two internal databases SID, Mag Iran and Google Scholar database with keywords Electronic Prescribing, E-Prescription, Prescribing, Medicines, Pandemic, outbreak were searched and collected. The inclusion criteria of this study included English and Persian articles including original, review and case studies, finally content of the included studies were analyzed.

Result:total of 32 articles were reviewed, and in 40% of the studies, the electronic prescription was mentioned as better acceptable to patients and increased satisfaction. Also, in 30% of the studies, the electronic prescription has created two-way communication between the medical specialties and the pharmacy. In other reviewed studies, electronic prescriptions have been mentioned as a solution to reduce the fear and risk of spread of the COVID-19 when receiving medical services, reducing errors and drug interactions. Finally, 10% of the remaining studies showed a relationship between prescription and electronic records.

Conclusion: The use of electronic prescribing with Electronic Health Records (HER) in ambulatory and inpatient care has been reported as an important strategic policy to improve health care, saving care costs, reducing prescription errors and duration of illness in the COVID-19 pandemic. The increase in the use of electronic prescriptions during the pandemic shows that the use of technology and electronic systems due to solving the challenge of the shortage of some drugs by inquiring about their stock status.

G-1221

Investigating the level of knowledge, performance and attitude of students regarding the management of municipal solid waste in Ilam University of Medical Sciences (IUMS) in 2022

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Introduction: Waste production is an integral part of modern life. Since urban waste is one of the important problems and challenges of life, it can affect human health. Improper management of urban waste can lead to water, soil and air pollution, which can cause high economic losses. Therefore, this study was conducted with the aim of determining the knowledge, attitude and performance of students of Ilam University of Medical Sciences regarding the management of urban solid waste in 1402.

Method & material: This is a descriptive-analytical study that was conducted through a questionnaire. The reliability and validity of the questionnaire was determined by Cronbach's alpha test (a = 0.74). In this study, 322 questionnaires were distributed and completed among the students of Ilam University of Medical Sciences through Pressline software. The obtained information was entered into spss software and analyzed using descriptive statistics (mean, frequency and standard deviation) and chi square test.

Result: In this study, the knowledge and attitude of students were evaluated at 95% and 94.4%, which indicates the good level of knowledge and attitude of students in the topic of urban waste management. Contrary to the knowledge and good attitude of the students, the results of the study showed that the performance of the students was about 44.5% at an average level.

Conclusion: In general, the level of awareness and attitude of students in the field of urban solid waste management was evaluated at a good level, but in contrast, the performance is at an average level, which indicates that awareness has not turned into performance and requires training and culture in this field.

G-1223

Effect of educational intervention based on Health Belief Model on cervical cancer screening in Isfahan

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Introduction: Today, in the world of health tourism, it is considered as one of the main sub-branches of tourism. Considering the appropriate economic-geographical opportunities of the country and the health tourism industry, using these opportunities requires foresight and a proper road map. This study was conducted with the aim of determining the future prospects of health tourism in Iran.

Method & material: The research is the result of a review study. PubMed, Google Scholar and SID databases were selected to extract information. The selected keywords included curative tourism, tourism tourism, health tourism. Entry criteria include original and non-original articles related to health tourism, articles published in the period of 2020 to 2023, articles that are in full text and in English. Articles not related to the topic were removed. Then the titles and abstracts of the articles were reviewed based on the inclusion criteria. Full texts of published articles were also reviewed. In the end, from the total of 150 retrieved studies, 23 studies were examined and analyzed.

Result: The evaluation of some reviewed articles led to the identification of things such as job creation, qualitative growth in the country's health sector, getting closer to global standards, earning money and currency, potential growth of the insurance industry, improving the quality of medical systems, becoming a health tourism hub. Also, in some studies, the existence of special medicinal plants or forms of traditional medicine as well as natural treatments such as natural spas have been mentioned to attract tourism.

Conclusion: It is suggested that creating appropriate infrastructure and focusing on providing high-quality medical services and the responsibility of the medical staff in the process of medical tourism will lead to the growth and development of medical tourism in Iran. The results of the studies showed that the four categories of planning, cost management, quality of medical services, and specialized personnel are in higher priority and should be the focus of the future plans of the country's tourism attraction management.

G-1224

Association between COVID-19 vaccine side effects and history of nutritional supplement intake: a retrospective study

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Introduction: As the development of a Covid-19 vaccine has taken hold worldwide, it is important to examine the pathways of response and side effects to vaccines. Human studies that investigate the relationship between the use of nutritional supplements before and oxidation and the severity of symptoms after vaccination are limited, this study was conducted with the aim of investigating the relationship between the use of nutritional supplements on the severity of side effects of the covid 19 vaccine after vaccination.

Method & material: The Medical Ethics Committee of Shoushtar School of Medical Sciences approved the research protocol according to the guidelines of the 2013 Declaration of Helsinki (registration number: IR.SHOUSHTAR.REC.1400.026). In this study, 465 participants vaccinated with Sinopharm vaccine (women and men in the age range of 18 to 65 years) from the vaccination centers of Khatam Al-Anbia Hospital (pbuh) in Shushtar city in Khuzestan province, between July and October 2014, were examined. . Inclusion criteria included: men and women over 18 years of age, vaccinated with the second dose of Sinopharm vaccine, absence of chronic diseases, and willingness to participate in the study. Participants were excluded from the study if they did not fully answer the questionnaire questions. The severity of symptoms after vaccination, the history of receiving food supplements, as well as the anthropometric and demographic characteristics of the participants were investigated through a questionnaire. People were grouped into four categories

Result: During the last six months, 191 people (41%) had not taken any nutritional supplements, 245 people (52.5%) of the participants vitamin D3, 145 people (31.3%) iron, 128 people (27.5%) vitamin C, 48 people (10%) Therefore, 71 people (15.2%) had taken folic acid and 100 people (21.5%) had taken multivitamins. After adjusting potential confounding factors such as history of allergies, smoking and chronic disease, economic status, level of education, physical activity, occupation, and marital status, between the history of dietary supplement use by different groups of participants (according to severity of symptoms) there was a significant difference (P0.001).

Conclusion: In the present study, the history of taking dietary supplements was related to the severity of complications after vaccination with covid-19. So far, there have not been enough studies on the consumption of nutritional supplements higher than the recommended RDA for better protection after vaccination with COVID-19, therefore, consuming higher than the RDA is not recommended.

G-1226

Determining the benefits and satisfaction of an evidence-based morning report from students perspectives

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Introduction: Evidence-based morning reports are one of the most up-to-date methods in the field of clinical education. In this session in addition introduce patient, Students search for the latest evidence about discussed diseases and present. The purpose of this research was to determine the benefits and satisfaction of the evidence-based morning report according to the nursing trainees' point of view in the psychiatric ward.

Method & material: The present study is part of a pilot study of a larger one. After the issue was raised and approved by the Educational Council of the Nursing Faculty of Dezful University of Medical Sciences, at first, the aim and method of research plus the evidence-based morning report explained to the participants. After obtaining the informed consent from the participants, 6 nursing students (equivalent to a clerkship group) during a 10-day psychiatry clerkship and held an evidence-based morning session each day. In these meetings, in addition to introducing the patients admitted the previous day; In the field of etiology and pathophysiology of the disease, new treatments and care tips for each patient and nursing process, relevant studies were searched and presented by the students. To determine the level of satisfaction, a 10-point Likert scale was used.

Result: 50% of participants were girls and 50% were boys. All of them were students of the 5th semester of Bachelor of Nursing. The results showed that the mean satisfaction of students with this study was 9 out of 10. From the analysis of student interviews ,34 unit meaning, 10 sub-categories and 4 categories were extracted. categories include search for evidence, familiarity with current knowledge, use of new teaching methods, and teamwork.

Conclusion: The use of evidence-based morning report method increases the satisfaction of nursing students. Also, as a less used method in the field of nursing, it is associated with learning and educational benefits for students, and it can allow them to more accurately record the behavioral patterns of patients and provide more complete information to the treatment team. In order to carry out further studies, it is suggested to evaluate this method from different aspects in nursing students, other disciplines and in different hospital departments.

G-1227

Investigating the amount of academic procrastination and its related factors in medical students

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Introduction: Procrastination is one of the problematic phenomena for a large number of people that affects millions of people in the world. This phenomenon is one of the most important causes of failure or failure of learners. Based on this, the present study was conducted with the aim of determining the amount of academic procrastination and its related factors in medical students at Zahedan Islamic Azad University.

Method & material: The statistical population includes all medical students who, according to the honorable vice chancellor of medical sciences of Islamic Azad University of Zahedan, 249 medical students studying in this field were included in the study. Samples, by census method, this cross-sectional observational study was implemented. The researcher distributed the academic procrastination questionnaire of Solomon and Roth Bloom among medical students at different levels, in this research, spss software version 24, independent t-test and one-way analysis of variance were used to analyze the data.

Result: In the present study, the average score of academic procrastination in medical students showed that there is no significant relationship between age and gender with academic procrastination in medical students. Also, the findings obtained in this study showed that there is a positive and statistically significant relationship between marital status and study time with academic procrastination in medical students. Other findings from this study showed that there is no statistically significant difference between academic performance or progress (average), study hours, interest in the field of study and the purpose of entering the university with procrastination in medical students.

Conclusion: Considering the academic procrastination of Zahedan Islamic Azad University medical students and its relationship with the variables of marriage and study time, it is suggested to investigate the causes and appropriate solutions to reduce this behavior.

G-1228

The effect of semen paraoxonase on male fertility

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Introduction: Infertility is one of the growing health problems in most countries, which affects the reproductive age of couples. About 60% of infertility problems are related to men. The amount and inappropriate performance of oxidant agents can cause disruption in the reproductive process. Enzymatic or natural antioxidants have different types, one of which is paraoxonase. This enzyme is present in seminal plasma and can affect sperm quality and parameters. In this study, we evaluated male fertility by using the relationship between paraoxonase levels in semen and sperm analysis parameters.

Method & material: In this descriptive-analytical study, semen samples of 30 men with normospermia criteria were selected by a simple random method and collected in sterile containers. Seminal fluid (1 ml) was evaluated under a light microscope (by one person). Then, with the help of a Neobar slide and counter device, parameters of sperm number, motility, and morphology were checked. After centrifugation and plasma separation, San Diego (USA) ELISA kit (MyBioSource) was used for laboratory quantitative measurement of Paraoxonase in semen.

Result: The participants in the study were between the ages of 20 and 45 and had no history of drug or alcohol use. The amount of paraoxonase enzyme in them was measured in terms of pg/ml, and divided into four ranges (0-10, 10-20, 20-30, 30-40). Based on the obtained results, the amount of paraoxonase had no statistically significant effect on sperm count, morphology (shape and size) (P0.05). However, the highest rapid mobility was found in the amount of 30-40 pg/ml of paraoxonase and the highest in situ and non-progressive mobility was found in the amount of 0-10 pg/ml, which statistically had a significant difference in each of the values (P0.05).

Conclusion: Infertility and personal and social problems caused by it are one of the important issues of couples. In this study, the amount of antioxidant paraoxonase in semen was measured and correlated with sperm quality parameters. Increasing the amount of paraoxonase dose-dependently increases the rate of rapid sperm motility. Therefore, the measurement of this enzyme as a side test can be an indicator of the health and quality of the semen and may be of great help in the diagnosis and treatment of male infertility.

G-1229

Smoking and alcohol, both alone and in combination, for risk of gastric cancer: A systematic review

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Introduction: Stomach cancer is the fifth most common cancer and the fourth leading cause of cancer deaths worldwide in 2020. Moderately increased risk of stomach cancer has been associated with tobacco smoking and Alcohol drinking. In this systematic review, we summarized the current knowledge on the relation between smoking and alcohol, both alone and in combination, to the risk of gastric cancer.

Method & material: This study was conducted in 2023 with a structured overview in the Science Directe, PubMed, Web of Science (ISI) databases. We investigated the studies that were published between 2010 and 2023. In the first step, articles were extracted based on their titles and abstracts; the quality of 58 articles was evaluated using the STORBE tool. Inclusion criteria were English language (first step), year of the study and the study type (second step).

Result: Of these 39 articles, 17 ones were case-control studies, 21 were cohort studies, one was a descriptive study. eleven articles were related to alcohol consumption and risk of gastric cancer, twenty-three articles were related to smoking and risk of gastric cancer, five articles were related smoking and alcohol consumption in combination and risk of gastric cancer. Many studies reported a significant association between
alcohol and gastric cancer risk. Also, three studies showed that smoking acts as a risk factor for developing gastric cancer only in certain genotype and not in all people.

Conclusion: Based on the best our knowledge and present studies, consumption of alcohol and smoking are risk factors of gastric cancer. It is better to conduct more studies on this issue in different populations in the future. We also suggest that future studies focus more on the intracellular mechanisms of these associations than on epidemiological outcomes.

G-1231

Photodynamic therapy with nano curcumin effect on collagen cross-link and mineral content of human dentin

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Introduction: Collagen cross-link helps with the mechanical properties of matrix dentin. However, the collagen matrix can be mechanically or biochemically destroyed due to physiological and pathological processes. Especially tooth decay, a demineralization process, leads to the evacuation of the collagen fibers. By using external cross-linkers, it is possible to strengthen the intra and inter-molecular cross-links of collagen, and as a result, the dentin matrix is maintained, and the rate of biological decomposition is reduced. In this study, we investigated the effect of photodynamic therapy using curcumin and nano curcumin solutions on the cross-linking of dentine collagen fibers.

Method & material: Fourteen human third molar teeth were cut mesiodistally and randomly divided into four groups. Each group was treated with agents after FTIR (Fourier-Transform Infrared Spectroscopy) and EDX (Energy Dispersive X-Ray Analysis) evaluations (group 1: Glu 5%, group 2: Cur + LED, group 3: Ncur + LED, group 4: DW). Then the samples were again subjected to FTIR evaluations. Then they were etched with 35% phosphoric acid for 15 seconds and then subjected to FTIR and EDX evaluations again.

Result: The superficial treatment of the samples with glutaraldehyde, curcumin, and nano curcumin increased the CH/amid3 ratio, but this increase was not statistically significant (P0.05). The superficial treatment of the samples with glutaraldehyde, curcumin, and nano curcumin also reduced the loss of calcium and phosphorus content of the samples after acid etching, and this reduction was significantly different in all three groups compared to the negative control group (P0.05).

Conclusion: The use of photodynamic therapy employing curcumin and nano curcumin solutions increases the cross-linking of dentin collagen fibers and, as a result, the resistance of dentin to demineralization.

G-1233

Does nudge lead to a change of path? A systematic review of COVID-19 preventive behaviors

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Introduction: One of the essential theories in behavioral economics is the nudge theory. Nudges are interventions that seek to modify the social and physical environment to increase capacity for subconscious behaviors that align with the intrinsic values of an individual, without limiting options. They are used to promote preventive hygiene behaviors in public health. As the covid-19 pandemic began, Preventive behaviors based on Nudge's theory received the attention by health policymakers worldwide. This study aimed to determine the effectiveness of the nudge theory in changing preventive behavior regarding the covid-19 disease.

Method & material: A systematic review of studies was conducted on PubMed, Web of Science, Scopus, ProQuest, and Google Scholar databases with the keywords Behavioral economics, nudge theory, nudge, COVID-19, SARS-Cov2, and its synonyms. Inclusion criteria in the study included English or Persian language, peer review, and exclusion criteria were unavailability of full text and focus on nudges that aren't be categorized into nudge strategies based on the Mindspace framework.

Result: A total of 485 articles were extracted from different databases, and after removing duplicate, unrelated, or subject-to-exclusion criteria, 14 articles were included. The nudges used included a short message system (SMS) (8 studies), digital message (2 studies), video message (1 study), default change (1 study), printed stickers (1 study), and disinfectant in public view (1 study). The expected outcome of the studies regarding vaccination was 10 cases of hand hygiene and 2 cases of physical distance. In 12 studies (85% of studies), the use of different nudges was able to improve the prevention behaviors of subjects significantly. The two unsuccessful interventions related to using text messages to encourage people to get the vaccination.

Conclusion: The results showed that the use of daily reminders, default changes, and printed messages, such as physical distance stickers, could be effective in changing the effective behavior of people in the face of pathogens. Since the covid-19 pandemic will probably not be the last pandemic of this type; it is necessary for health systems, including the Iranian health system, to have a clear and precise plan to use international experiences and new initiatives to use the nudge theory to change public behavior.

G-1234

Deep-learning based image reconstruction algorithms impacts on patient dose and image quality in coronary computed tomography angiography

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Introduction: The non-invasive imaging method of coronary computed tomography angiography (CCTA) is used to coronary artery disease (CAD) detection. Conventional reconstruction methods have limitations regarding image quality and radiation dose. Deep learning image reconstruction (DLIR) algorithms have been developed to address these challenges. This research assesses the effects of DLIR models on patient dose and the quality of CCTA images compared to conventional methods as filtered back-projection (FBP) and iterative reconstruction (IR) algorithms.

Method & material: PubMed, Science Direct, Web of Science, and Google Scholar databases were explored up to May 2023, using different combinations of the keywords: cardiac CTA, computed tomography angiography, radiation dose, dose reduction, artificial intelligence, machine learning, image reconstruction algorithm and deep learning. The results were screened. Seven more recent and relevant papers were included in the study.

Result: Based on the results of the reviewed papers, when comparing DLIR, conventional FBP, and ASiR-V image reconstruction algorithms in terms of patient dose and image quality, it revealed significantly reduced patient dose for DLIR methods, along with improved image quality and diagnostic accuracy. With less noise, higher SNR, and improved CNR, the DLIR model demonstrated improved diagnostic reliability and provided higher precision and sensitivity in stenosis detection. Moreover, the DLIR can be potentially suitable for patients with higher body mass indices (BMI) due to the reduced noise in the reconstructed images.

Conclusion: Overall, DLIR has the potential to enhance CAD assessment. It improves spatial resolution, lowers image noise, maintains vascular attenuation, and produces equivalent or even higher image quality with a lower radiation dosage compared to conventional CT image reconstruction algorithms. DLIR is capable of measuring plaque volume and composition, or stenosis severity in CTA exams.

G-1235

Effect of whole dried fruit powder of Citrullus colocynthis on patients with diabetes: A systematic review

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Introduction: Citrullus colocynthis specifically grown in different parts of the world and is traditionally used for constipation, bacterial infections, edema, cancer, obesity, fever, amenorrhea, jaundice, leukemia, rheumatism and respiratory diseases. Chemical studies have shown the presence of cucurbitacin, flavonoids, alkaloids and phenolic acids in this plant. This combination is responsible for the interesting biological activities of C. colocynthis. This plant has a high frequency of use among traditional healers. Cell model study also shows that C. colocynthis fruit has insulin-enhancing activity. This activity may partly explain its antibiotic effect that is explained in traditional medicine. As a result, the aim of this study is examination the effect of whole dried fruit powder of Citrullus colocynthis on patients with diabetes.

Method & material: Two databases of Pubmed and Scopus were searched with this strategy: (diabet*[Title/Abstract]) AND ((Citrullus colocynthis [Title/Abstract]) OR (bitter apple [Title/Abstract])) from beginning to June 2023. After removing the duplicate articles, by reading the title and abstract of the articles, unrelated articles, animal and case report studies were excluded. Then, the full text of the remaining articles was reviewed.

Result: From 58 studies, 3 studies were included in the study. These studies show 300 mg and 125 mg C. colocynthis fruit for 2 months significantly decrease hemoglobin A1c and fasting blood glucose (FBG). Also, 1000mg of it for 1 month can significantly decrease FBG. Total cholesterol, low-density lipoprotein, high-density lipoprotein, triglyceride, aspartate transaminase, alanine transaminase, alkaline phosphatase, urea and creatinine levels did not change significantly in any study. In none of the studies, adverse effects were shown.

Conclusion: This study shows Citrullus colocynthis has a beneficial effect on improving the glycemic profile without any effect on lipid profile in diabetic patients. Further clinical studies are recommended to confirm the Citrullus colocynthis effect.

G-1236

Evaluation of the effect of Melissa officinalis L. (lemon balm) capsule on cognitive impairment in major depressive disorder patients treated with electroshock therapy

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Introduction: Electroshock therapy (ECT) is the most effective treatment for major depression, but the most common complication of ECT is cognitive disorders and therefore it is essential to find a strategy to eliminate or reduce these complications. The present study was aimed to evaluate the effect of Melissa officinalis L. (lemon balm) capsule on cognitive impairment in depressed patients treated with ECT.

Method & material: The present randomized clinical trial was performed on 70 patients with major depression treated with electric shock. Intervention groups were treated with medicinal capsules and control groups received placebo. Medicinal capsules containing 500 mg of dried M. officinalis leaf powder and wheat starch as placebo were administered three times a day. Cognitive status and memory were assessed using the mini–mental state examination (MMSE).

Result: There was no significant difference in the MMSE score between the two groups. After the intervention, MMSE scores in the intervention and control groups were 23.29±4.93 and 22.31± 4.65, respectively, which decreased in comparison with before the intervention.

Conclusion: The current study showed that administration of dried M. officinalis leaf powder was not effective to improve cognitive impairment after ECT; therefore, the use of M. officinalis leaf extract capsule for cognitive impairment after ECT in longer treatment periods should be examined in future studies.

G-1237

Association between health locus of control and COVID-19 risk perception: A cross-sectional study in Iran

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Introduction: The COVID-19 pandemic has significant effects on people's physical, mental, and emotional wellbeing. People experience diseases differently based on their perception of how they perceive the source of the disease. This study investigated the association between health locus of control and perceptions of COVID-19 risk during the outbreak of COVID-19 in the Iranian population.

Method & material: The current research is a cross-sectional study that was carried out in Sirjan in 2021. The sample size was 448 people, and the samples were collected using the convenience sampling method. Data collection was done through demographic information, health locus of control, and a COVID-19 risk perception questionnaire. The instruments for measuring the variables had reliability and validity. SPSS software was used for statistical analysis. Depending on the type of variable, mean, standard deviation, or frequency percentage were used to summarize the data. The relationship between the health locus of control and COVID-19 risk perception was investigated using Spearman's correlation coefficient. Also, Spearman's correlation coefficient, Mann-Whitney U test, and Kruskal-Wallis test were used to evaluate the focus of health locus of control and COVID-19 risk perception in subgroups of demographic variables. A significance level of 5% was considered significant.

Result: The mean age of the study participants, who were 480 people, was 22.93 ± 5.42. The total score of COVID-19 risk perception for all study participants was 131.61 ± 13.49. The score of the health locus of control was 69.74 ± 10.58 and its subdomains including health caused by others (PHLC), health caused by self (IHLC), and health caused by chance (CHLC) were 23.70 ± 5.51, 27.60 ± 4.03 and 18.4 ± 5.39, respectively. There is a positive (r=0.366) and significant (p0.001) correlation between the COVID-19 risk perception and the health locus of control. The PHLC (r=0.385) (p0.001) and IHLC (r=0.251) (p0.001) subdomains of the health locus of control had a significant positive correlation with the COVID-19 risk perception, while the CHLC subdomain (r=0.141) (p= 0.02) of health locus of control was not significantly related to the COVID-19 risk perception.

Conclusion: The present study shows a direct association between health locus of control and COVID-19 risk perception. Most respondents believed their health was caused by their own activities and it depends on internal factors. The risk perception of COVID-19 is more heightened among those who believe their health is affected by the activities of others.

G-1238

The Credibility of Genetically and Epigenetically Molecular Switches as Potent Biomarkers in the Prognosis, Diagnosis, and Therapeutic Monitoring of Colorectal malignancy.

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Introduction: The genes with high connectivity and positive feedback loops, known as hub nodes, tend to become master switches in the pathogenesis mechanism. Genome sequencing and high-throughput data have been used to pinpoint the hub genes that constitute the molecular signaling networks. Even though colorectal cancer is one of the most prevalent digestive tract cancers, the exact rationales of the pathophysiological mechanism and related genes are still a puzzle. Text mining and artificial intelligence surveys have revealed a complex cross-talk between genomics, transcriptomics, epigenomics, methylomics, family history, and environmental terms like gut microbiota alteration, diet pattern, infection, metabolic disorders, mental conditions, and inflammation may all play a role in causing gastrointestinal damage.

Method & material: In this comprehensive analysis of high-throughput data have been used to pinpoint the genes that make constitute the intracellular signaling networks that govern biological processes. On the other hand, data analysis of non-coding RNAs indicated the significant effects of epigenetics, microRNAs, and lncRNAs practice critical roles in the susceptibility, risk, development, and progression of tumors from normal to end-stage colorectal tumors.

Result: Based on artificial intelligence surveys, protein-protein interactions network analysis, and enrichment of molecular signaling pathways related to colorectal pathogenesis and progression rate, we provided a list of significant differential expressions of genes, lncRNAs, and microRNAs that might present prospective molecular genetics markers. Hence, we suggested that significant differential expressions of genetic markers with high connectivity and positive feedback loops, known as hub nodes, tend to become master switches in the development and progress of tumoral cells.

Conclusion: Hub genes may be interesting as potent biomarkers for prognosis, diagnosis, and therapy monitoring due to the significant positions of influential nodes and significant differential expression relative to a healthy status. Hence, comprehending the pathomechanism and marking hub genes involved in colorectal cancer susceptibility can supply new perspicuity into prognosis, diagnosis, and therapeutic strategies. Here, we achieved comprehensive biomarkers for monitoring and follow-up of the colorectal state that could be practically significant efforts on prognosis and diagnosis approach. The combined large-scale data screening proposes potential diagnostic and prognostic biomolecular signatures through RNA-based biomarkers as personalized diagnostic panels.

G-1239

Investigating the impact of office work environment noise on text editing process in students of Birjand University of Medical Sciences

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Introduction: Noise pollution is one of the most important harmful physical factors in work environments that affects the quality of human life by causing psychological disorders. The present study was conducted with the aim of investigating the impact of workplace noise on text editing process in students of Birjand University of Medical Sciences.

Method & material: In this semi-experimental study conducted on 100 students of Birjand University of Medical Sciences, Casella Cel 450 sound meter was used to determine the level of sound in open and closed offices. Data collection was done by Weinstein's sound sensitivity and demographic questionnaires, as well as two Stroop tests and text editing, and the data were analyzed using SPSS version 24 software and Kruskal-Wallis and t statistical tests with an independent sample. it placed.

Result: Exposure to sound in closed office environments is 62 and 68 decibels in the quietest and busiest time and 65 and 73 in open office environments. The sound level was chosen for the baseline condition of 52 dB. There was a significant difference in the average number of relative written, relative number of content and spelling mistakes found between groups of students in different audio conditions. According to the Stroop test, there was a significant difference in the test time for consonant and dissonant words in two groups with different sound exposures, so that in the sound condition of 73 dB compared to 52 dB, the time to perform the Stroop test is significantly higher. Also, there was a significant difference in the response time of consonant words at 73 dB compared to 52 dB.However, this significant difference was not seen regarding the response time of discordant words.

Conclusion: Based on the results of this research, increasing exposure to occupational noise significantly reduced students' concentration and attention. Therefore, acoustic design, considering appropriate engineering solutions, can play an effective role in creating a peaceful environment, especially in perceptual processes.

G-1242

Copper Improves Antibacterial Activity of Fluoride and Nitrogen Carbon Dots Loaded in Chitosan Gels

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Introduction: Antibiotic resistance poses a significant challenge to the health of the global population. Thus, an alternative approach is necessary, one that is more efficacious in resolving this problem. A possible approach that can be considered is the use of nanoparticles which have been proved to be effective against antibiotic resistance. Carbon Dots (CDs) indicate less bacterial resistance due to enhanced membrane permeability, lack of efflux pump and induction of various antibacterial mechanisms. The compound known as chitosan is of interest in the realm of academic research. This study aimed to investigate the antibacterial properties of three distinct variants of chitosan-based gels, namely 1) chitosan, 2) CD-loaded chitosan, and 3) Cu-CD-loaded chitosan

Method & material: Here, we used CDs as novel antibacterial nanoparticles which were synthesized via the hydrothermal technique. We doped CDs with copper atoms (Cu-CDs) to enhance their antibacterial activity. The obtained nanoparticles were characterized by zetasizer, Fourier transform infrared (FTIR), Transmission electron microscopy (TEM), and Energy-dispersive X-ray spectroscopy (EDS) in order to investigate the nanoparticle characteristics. The antibacterial activity of the gels was evaluated using well diffusion method and E. coli as gram-negative, and S. aureus as gram-positive bacteria. The carbon dot concentration of 10.5 micrograms per well was used.

Result: FTIR and EDS results proved the successful formation of the CDs and Cu-CDs nanoparticles. TEM images showed that the size of nanoparticles is around 30 nm. The present study provides evidence that the Cu-CD-loaded chitosan gel exhibits superior efficacy in combating bacterial strains of both the gram-negative and gram-positive varieties than the other two gels. The gels we used had more antibacterial effects on gram-negative bacteria than on gram-positive.

Conclusion: This study indicated that cu dopped CDs loaded in chitosan gel is appropriate for killing bacteria particularly gram-negative strain. Our study deduces that the utilization of Cu doped carbon dots holds potential as an efficacious treatment against antibiotic resistance

G-1243

Histopathological Examination of Lung Necropsy of 11 Patients Died Due to COVID-19: A Case Series

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Introduction: Covid-19 in known to present with acute respiratory distress syndrome pathological manifestations. Studies have shown that patients with Covid-19 can develop diffuse alveolar damage, acute bronchopneumonia, necrotic bronchiolitis, and viral pneumonia. Despite some limited case series studies, there is not enough evidence to highlight the COVID-19 pathology. In this study, we investigate 11 cases, including their medical history, management, and post mortem necropsy findings.

Method & material: Needle necropsies of 11 patients, hospitalized at Tohid and Kowsar hospitals of Kurdistan University of medical Sciences, with a positive antemortem SARS-CoV-2 (COVID-19) real time PCR test, were taken and fixated within 3 hours after death in the negative-pressure isolation morgue.

Result: The participants included 6 men (54%) and 5 women (46%) with mean age of 73.82 ± 10.58 (52–86) years old. The average hospitalization was 14.27 ± 15.72 days. The necropsy results showed an interstitial lymphocytic pneumonitis in most of the cases, with severities ranging from mild to moderate and severe in some cases respectively. In 7 cases, Anthracosis and in one case, anthracosis with fibrosis was evident. Hyaline membrane was reported in two patients. In one case, a severe interstitial lymphocytic pneumonia with intra-alveolar exudate with organization, lithiasis, bronchiolitis pattern (BOOP) along with intra-alveolar hemorrhage and mild fibrosis was seen.

Conclusion: Pathologies like hyaline membrane and pneumonitis are among the not so common lung manifestations of this disease. As a result, it is suggested to keep an eye on these pathologies in managing severe case of COVID-19 infection.

G-1244

Evaluating the use of mobile phone applications in the operating room: A systematic review

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Introduction: In order to improve the quality of healthcare services in different hospital wards, including the operating room, the use of mobile applications has increased among the medical staff. The purpose of the present study is to investigate mobile phone applications developed or used in the operating room.

Method & material: According to PRISMA statement, PubMed Scopus and Web of Science databases were searched without time limit until September 11, 2022. The search strategy included the concepts of Mobile Application and Surgery Room and their synonyms. The original English articles titled Investigating the use of mobile phone applications in the operating room were included in the present study. Data analysis was carried out using content analysis method.

Result: A total of 3535 articles were retrieved and entered into Endnote software. Finally, 4 studies were selected. The application users were reported to be the medical staff and medical science students in 3 cases (75%) the and 1 case (25%). One application (25%) was available on both Google Play and AppStore, and one application (25%) was available on AppStore and Google Play separately. Applications have been developed in order to train and simulate the professional activities of the operating room (50%), report the lack of anesthesia equipment (25%) and become an information source for physicians (25%).

Conclusion: Mobile applications are a suitable tool for improving the quality of student education and improving the health care services. It is suggested to develop more comprehensive applications that meet the users' needs by identifying the strengths and weaknesses of operating room applications.

G-1245

Health and the gut microbiome: mechanistic insights

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Introduction: The bacterial cells harbored within the human gastrointestinal tract (GIT) outnumber the host's cells by a factor of 10 and the genes encoded by the bacteria resident within the GIT outnumber their host's genes by more than 100 times (Matthew J. Bull, BSc, PhD; Nigel T. Plummer, PhD,2014,p,1). One of the major factors influencing the regulation of host health is now recognized to be the gut microbiota. Almost every place on our bodies is inhabited by microorganisms, indicating various sorts of crosstalk with our organs.

The complicated interactions between the host and the many microbes are gradually becoming understood thanks to the advent of molecular tools and methodologies (such as metagenomic, metabolomic, lipidomic, and meta transcriptomic). Today, abnormalities in the gut microbiota are associated with a wide range of illnesses, including obesity, type 2 diabetes, hepatic steatosis, inflammatory bowel disorders (IBDs), and various cancers.

Method & material: The necessary information was gathered for systematic review utilizing the keywords and MeSH (Medical Subject Heading) terms listed below, where possible, and by reference to leading data databases such as PubMed, Science Direct, and ProQuest. Additionally, a manual search using Google Scholar was performed to increase search sensitivity. The statistical study population includes all studies conducted from January 2018 to April 2023 in a relevant context. After reviewing the relevant results and evaluating the data quality, 16 English-language articles were analyzed.

Result: As a result, different metabolic pathways involved in immunity, energy, lipid, and glucose metabolism may be impacted. A critical assessment of the state of knowledge on this topic is specifically addressed in this review. There are many biological explanations for how gut bacteria may be causally related to illness prevention or development. We examine well-known metabolites (such as short-chain fatty acids, bile acids, and trimethylamine N-oxide) as well as recently discovered molecular actors (such as endocannabinoids, bioactive lipids, phenolic-derived substances, advanced glycation end products, and enterocytes) and their particular receptors, such as peroxisome proliferator-activated receptors alpha (PPAR) and gamma (PPAR (ie, GPR41, GPR43, GPR119, Takeda G protein-coupled receptor 5). Understanding the complexities and molecular mechanisms that connect gut microorganisms to health may help provide the groundwork for cutting-edge treatments that are already in the works.

Conclusion: As a result, different metabolic pathways involved in immunity, energy, lipid, and glucose metabolism may be impacted.

G-1246

Diagnostic utility of neutrophil extracellular trap, syndecan-1 and high mobility group box protein-1 for disseminated intravascular coagulation: A systemic review and meta-analysis

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Introduction: Disseminated intravascular coagulation (DIC) is the systemic activation of coagulation system as a result of imbalance in hemostatic system with excessive clot formation leading to depletion of platelets and clotting factors and eventually bleeding the clinical presentation of DIC can be highly variable, depending on the dynamic balance between clot formation and degree of consumption of platelets, coagulation factors and inhibitors. Therefore, diagnosis of DIC can be challenging, requiring the presence of a relevant underlying disease, symptoms indicative of DIC and abnormal laboratory test results. Although these tests are useful especially when used in conjunction and serially, they are not adequately specific or sensitive; therefore, other laboratory markers have been investigated by several researches. In this meta-analysis we reviewed the utility of neutrophil extracellular trap formation (NET) formation, syndecan-1 (SDC-1) and high mobility group box protein -1 (HMGB-1) as diagnostic predictors for DIC.

Method & material: We searched PubMed and Scopus databases up to January 15, 2020, using the following search terms in combination: 'high mobility group box protein', 'HMGB', 'syndecan-1', 'SDC-1', 'neutrophil extracellular trap', 'NET formation', 'NETosis', 'disseminated intravascular coagulation' and 'DIC". Relevant studies were included based on inclusion criteria. This study was conducted according to Preferred Reporting Item for Systematic Reviews and Meta-Analysis (PRISMA) and study protocol was registered at PROSPERO (CRD42023392010). Assessment of quality and risk of bias of eligible studies was conducted using the Quality Assessment of Diagnostic Accuracy Studies 2 (QUADAS-2) tool. Meta-analysis was conducted to estimate the standardized mean difference (SMD) and 95% confidence interval (CI) between patients with and without DIC.

Result: A total of 16 studies were included, 14 of which had sufficient data for meta-analysis. Patients with DIC had significantly higher HMGB-1 (SMD: 0.62, 95% CI: 0.25-0.99, p=0.001), SDC-1 (SMD: 0.87, 0.53-1.21, p0.00001), nucleosome (SMD: 0.57, 0.31-0.84, p0.0001) and histone H3 (SMD: 0.50, 0.12-0.87, p=0.009) levels compared to patients without DIC.

Conclusion: Early diagnosis of DIC may significantly reduce the mortality rates among patients and to this end, more and more biomarkers have been explored by the investigators. our analysis showed that NET formation, HMGB-1 and SDC-1 are elevated in DIC patients and can be useful for diagnostic purposes as complementary to the currently available biomarkers.

G-1248

Report of a case with mesiodens and an odontoma like malformation

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Introduction: Mesiodens is the most common developmental problem in children, which has been argued to arise from multiple etiologies. Presence of mesiodens in primary dentition can cause several problems including malposition of adjacent teeth, ectopic or a delayed eruption of permanent teeth, and cyst formation. On the other hand, Odontomas are nonaggressive, hamartomatous developmental malformations or lesions of odontogenic origin, which consist of enamel, dentin, cementum and pulpal tissue. Radiographically, odontomas is a radio-opaque mass with little resemblance to a tooth germ. This paper reports a case which had the presence of a mesiodens in maxillary midline and an odontoma like malformation in right mandible.

Method & material: We report a case of a 6 years old girl with supernumerary tooth and odontoma like malformation. Her parent's chief complaint was, our daughter has an extra tooth, and we were sent here to extract it. She had no serious medical history. She was normal in extra and intra-oral examination except dental caries and a mild crowding in lower anterior teeth. However, in radiographic examination, a mesiodens was seen in the left maxilla. In the right mandible, the area of the second premolar had a mixed radiopaque-radiolucent mass which was well-defined and had a thin radiolucent rim. There were no missing teeth. Radiolucency in the crown region of 6 unerupted teeth was suspicious to pre-eruptive caries. Supernumerary teeth were extracted with palatal and vestibular surgery.

Result:

Conclusion: Mesiodens can cause delayed or ectopic eruption of permanent incisors, which can further alter occlusion and appearance. Therefore, early detection and management of supernumerary teeth with abnormalities is a necessary part of preventive dentistry.

G-1249

The effect of Plerixafor on the neutrophil count in Myelokathexis patients, a systematic review

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Introduction: warts, hypogammaglobulinemia, infections, and myelokathexis (WHIM) syndrome is an uncommon Birth born immunodeficiency disorder that leads to neutropenia due to the inability of neutrophils to exit the bone marrow. WHIM syndrome can be attributed to genetic mutations that activate the CXCR4. One potential therapy is the use of plerixafor (also known as AMD3100 and Mozobil), a substance that blocks CXCR4 receptors which may boost neutrophil release into the blood circulation and increase its count.

Method & material: This systematic review was conducted in the PubMed, Web of Science, and Scopus databases, using the keywords Plerixafor or AMD3100 or Mozobil and Myelokathexis or WHIM syndrome or CXCR4 mutation. Randomized controlled trials and clinical trials were included and non-English articles, animal studies, case reports, and review articles were excluded. Our target groups were studies that administer just plerixafor for myelokathexis patients without any other intervention.

Result: Records consist of 40 articles and 3 of them were validated by our inclusion criteria. All studies which were clinical trials, showed an increase in neutrophils and lymphocytes in patients. In the first study, in six patients, plerixafor was given in 0. 04 to 024 mg/kg dosage at 2-4 days intervals and All patients exhibited an immediate increase in their white blood cell count. The number of lymphocytes in the body rose, with the most significant rise occurring in B cells, specifically CD19 cells. In the second experiment, a phase 1 dose-escalation study included three adult patients with the CXCR4R334X mutation, Plerixafor was found to successfully normalize lymphocyte, monocyte, and neutrophil counts in all three patients. In the third study, over a period of six months, three adult individuals diagnosed with WHIM syndrome were administered subcutaneous injections twice a day, using a dosage that equated to only 4-8% of the

Conclusion: Studies showed the crucial molecular mechanism in WHIM syndrome patients is the CXCR4 signaling, enabling further investigation of plerixafor as a promising cause-based therapy for adult patients with this disease. No adverse effects related to drug consumption were detected. Upcoming research must focus on determining the most effective dosage and ensuring the safety and effectiveness of the treatment over an extended period in a larger population, which should also include children.

G-1250

Therapeutic potential of Mesenchymal stem cells exosome in AML: A Systematic Review

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Introduction: Acute myeloid leukemia (AML) is a genetically heterogeneous disease characterized by the successive acquisition of mutations in HSCs that cause unchecked proliferation and a coincident differentiation arrest. New reagents or biologicals for the treatment of AML are urgently needed, and exosomes have been distinguished as candidate biomarkers for disease diagnosis and prognosis. Exosomes are a very small models of cells that are secreted by most cells in the body under physiological and pathological conditions. They have found a special place in the treatment of different diseases such as hematological malignancies because of their very small structure and biodegradability. MicroRNAs (miRNAs) are short (20–24 nt) non-coding RNAs that are involved in post-transcriptional regulation of gene expression. Certain miRNAs have been proven to be enriched in MSCs-derived exosomes and play a role in the pathogenesis and development of various diseases.

Method & material: An extensive review of medical literature was conducted to establish a consensus about the feasible therapeutic effect of this treatment. This systematic review was conducted in the PubMed database up to May 2023. The screening was done by using the following keywords: (AML) and (Mesenchymal stem cells) and (exosome). We exclude animal studies, review articles and case reports. Also randomized controlled trials (RCTs) and noncomparative studies were included.

Result: After reviewing records, we identified four studies that met the inclusion criteria. All studies demonstrate a significant reduction of proliferation, progression, chemosensitivity and enhance AML cell apoptosis after treatment with BMSCs-derived exosomes. In the first study, Hsa-miR-124-5p inhibits KG-1a (The AML cell line) cell proliferation and cell cycle progression and promotes apoptosis by BMSCs-derived exosomes. In the second, study HMSC-exomes induced the apoptosis of AML cells by delivering miR-23b-5p. In the third study, BM-MSCs delivered miR-222-3p via exosomes to inhibit cell proliferation and promote cell apoptosis by targeting IRF2 and negatively regulating IRF2/INPP4B signaling in THP-1 cells (the AML cell line). In the last study, BMSCs-derived exosome, miR-7-5p suppresses tumorigenicity of AML in vitro. In all studies we see significant differences between our control group and treatment group (P 0.05).

Conclusion: The findings of this systematic review of current evidence found that mesenchymal stem cell exosomes have a remarkable effect on decreasing pathogenesis of AML. However, the efficacy and toxicity of exosomes used clinically require more in vivo studies. Characterization of exosomes using multimodal techniques may help to further characterize the stability and function of exosomes in vivo. This topic still requires an immense amount of research to fill the gap in adequate knowledge.

G-1253

Preparation of atorvastatin pellets and evaluation of their physicochemical properties

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Introduction: Pellets are considered as one of the ideal forms of medicine that have advantages over single form. Including Pellets have high dosage loading capability, have a uniform particle size, are uniformly distributed in the gastrointestinal tract, reduce gastrointestinal stimulation, reduce the risk of a single release of the active substance, produce a steady blood level, and decrease the plasma concentration fluctuations. Atorvastatin is a group of statin drugs. Considering that atorvastatin has a low water solubility and high digestive absorption, it is classified as class II drugs. As a result, the bioavailability of this drug is influenced by its low solubility of the drug (12%). The purpose of this study was to provide rapid-release atorvastatin pellets and evaluate their physicochemical properties.

Method & material: The rapid-release pellets of this drug were prepared using the Extrusion-Spheronization method. These pellets were prepared using materials such as Avicel, Povidone, Calcium Carbonate, Croscarmellose Sodium, and Myrj52. The particle size of pellets, density, drug content, process efficiency, and disintegration time for all formulations was investigated. Drug release was evaluated from all formulations prepared with the USP II dissolution device. The concentration of atorvastatin calcium in the samples was determined using a UV spectrophotometer at a wavelength of 244 nm. The effect of different disintegrants and surfactants on the preparation of formulations was investigated using data from drug release.

Result: The resulting pellets in all formulations had features such as the distribution of narrow particle size, spherical and uniform shape, Bulk density and tape density equals, and drug content above 95%. Formulation No.8 had a faster release than other formulations and commercial tablets available on the market.

Conclusion: Using the Extrusion-Spheronization method and Croscarmellose Sodium and Myrj52, we managed to produce fast-release atorvastatin pellets that were faster than commercially available tablets in the market.

G-1254

Using Dextran Stabilized Nanodroplets As A Novel Ultrasound Drug Delivery System for Cancer Therapy

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Introduction: Dextran drug delivery include the use of natural dextran polymers in the field of targeted administration and controlled release for better bioavailability, reduces the side effects and toxicity of the main drug. The purpose of this study is actually the synthesis and description of perfluorohexane nanomicelles loaded with DOX using ultrasound radiation in laboratory conditions.

Method & material: The effects of processing parameters such as homogenization speed, dextran polymer concentration, and surfactant concentration variables on particle size, encapsulation efficiency, and drug release kinetics from DOX-loaded dextran-stabilized perfluorohexane NDs have also been investigated. UV-vis spectroscopy was used to check drug release and encapsulation. In order to optimize the formulation of nanoparticles in terms of entrapment, release speed and drug size, the variables of the homogenization speed process of polymer surfactant and drug were calculated.

Result:9 types of Multifunctional stabilized dextran nanodroplets were synthesized, each of which had different characteristics. They were irradiated with ultrasound waves at 28KHz and 1MHz frequency, then Cytotoxicity and Cumulative drug release characteristics were discussed. Particles with nano dimension showed better activity in terms of Cumulative drug release and cytotoxicity. B1 sample with a diameter of 46.2 nm and 80.2% encapsulation efficiency and C3 sample with a diameter of 47.2 nm with same encapsulation efficiency were the best samples compared to the others, but C3 had a low polydispersity index (0.30) and showed the best properties. Also, the results of cytotoxicity showed that at 28 kHz frequency of ultrasonic led to more biocompatibility of DOX-loaded.

Conclusion: The desired properties of nanoparticles were obtained by changing the process variable and their formulation. Incorporation of a cosurfactant resulted in smaller NDs and DOX control, Thus, it was determined that C3 sample showed the best properties. Cytotoxicity results also showed that 28 KHz ultrasonic frequency resulted in greater biocompatibility of DOX-loaded nanoparticles.

G-1256

Efficacy and safety of topical timolol for the treatment of facial angiofibroma in children with tuberous sclerosis complex

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Introduction: This study aimed to assess the efficacy and safety of topical timolol in treating facial angiofibromas (FAs) in pediatric patients with tuberous sclerosis complex (TSC).

Method & material: A prospective clinical trial was conducted involving fifteen children diagnosed with TSC and presenting with FAs. The participants were administered topical timolol gel 0.5% twice daily. Prior to the intervention, the severity of FAs in each patient was evaluated using the Facial Angiofibroma Severity Index (FASI), which assessed erythema, size, and extent of lesions. Clinical response was assessed at weeks 2 and 4 during the intervention period, as well as one month after discontinuation of treatment.

Result: Four weeks after discontinuing topical timolol 0.5%, statistically significant reductions were observed in the mean FASI score, erythema, size, and extent of lesions (P 0.0001, P 0.0001, P = 0.012, P = 0.008, respectively). FASI scores at four and twelve weeks post-intervention, as well as four weeks after treatment cessation, demonstrated a significant decrease compared to baseline (P 0.001). Erythema and extension scores also exhibited a significant decrease one month after treatment cessation compared to baseline (P 0.05), while the mean size of lesions before and after the intervention did not show a statistically significant difference (p = 0.004).

Conclusion: Topical timolol 0.5% represents a cost-effective and readily available treatment option for pediatric patients with facial angiofibromas associated with tuberous sclerosis.

G-1257

Bevacizumab as adjuvant therapy in the treatment of keloid: A randomized clinical trial

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Introduction: There is no management of keloid remains a challenging clinical problem despite numerous therapies reported until now. The efficacy of corticosteroids in the treatment of keloids has been well established. The most commonly used corticosteroid is intralesional triamcinolone. Sporadic reports on the use of intralesional verapamil suggest its efficacy. The aim of the study was to evaluate the efficacy and safety of bevacizumab as adjuvant therapy in the treatment of keloid.

Method & material: The study was performed as a randomized, controlled trial on 38 patients who had clinical diagnostic criteria for keloid. The study was carried out to compare the effects of intralesional triamcinolone combine Bevacizumab injections. Patients were randomly allocated to receive one of Intralesional triam HEXAL® (20 mg/ml, monthly for 3 months) plus Avastin®(2.5 mg/ml monthly for 2 months) group was considered as a combination treatment group, and intralesional triamHEXAL® alone as a single treatment group . Scar evaluation at each stage was done by serial photographic was records as well as by Vancouver scar scale (VSS). Differences in VSS scores considered as the main outcome and changes in the height and patient's satisfaction visual analog score (VAS) between two groups were defined as the secondary outcome.

Result: Thirty-eight patients were participated in the study. The mean age (SD) of patients was 35.32 (14.02). 50% of patients were male. There were no significant differences in age, BMI, duration of disease, gender, causing, family history, and site between the two groups.

The mean of changes from baseline to three months after treatment for pigmentation score in the single treatment group was 0.60 (95% CI: (-1.18, -0.01); P= 0.045) less than combination treatment group. Moreover, the mean of changes from baseline to three months after treatment for total score in the single treatment group was 1.37 (95% CI: (-2.68, -0.07); P=0.039) less than the combination treatment group. There was a significant reduction in height of keloid in the combination group after 3 months of the end of the treatment (P=0.024) .

There was no significant difference in side-effects between the combination treatment group and the HEX group.

Conclusion: the result of our study demonstrated bevacizumab can be considered as an effective and safe adjuvant option for the treatment of keloid. So, Bevacizumab can be suggested as a promising treatment in the management of keloids.

G-1258

Comparison of barriers to establishing effective nurse–patient communication from the point of view of nurses and patients in covid–19 and non–covid–19 wards in hospitals affiliated to Shahroud University of Medical Sciences in 2022

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Introduction: Communication is considered one of the central concepts in nursing and an essential part of the nursing profession, and patients feel interaction with nurses as the basis of their treatment. Communication between nurses and patients is an interpersonal process between these two groups during treatment. Identifying the factors that prevent effective communication between nurse and patient makes it possible to take necessary measures to adjust the obstacles better. Therefore, this study aims to compare the barriers to effective nurse-patient communication from the perspectives of nurses and patients in the covid-19 and non-covid-19 departments.

Method & material: This research is a cross-sectional descriptive study conducted in 2022. The participants in the study included 200 nurses and 200 patients from different departments of Imam Hossein (AS) and Bahar Shahroud hospitals, where nurses were sampled by stratified method and patients by systematic random sampling. The data was collected by completing a questionnaire with 30 questions for nurses and 15 questions for patients based on a 5-point Likert scale that was shared with the nurses' questions. Data analysis used descriptive indices and inferential statistics (Linear regression).

Result: The findings showed that the excessive expectations of patients, the high workload of nursing, the severity of the disease, and the authorities lack of appreciation for nurses are the most essential communication barriers from the nurses' point of view. Also, nurses' aggressive moods, problems outside the nurses' work environment, and the large amount of nursing work were the most essential communication barriers from the patients' point of view. The face mask was also among the least critical barriers to nurse-patient communication from the point of view of both groups. The regression model also showed that the nurses' age variable explained 3.8% of the score variance. In other words, the regression model revealed that the average score of nurses would decrease to 0.48 for each year of age increase. Additionally, the patient's residence variable explained 2.3% of the score variance, meaning that native people obtained an average score of 2.83 units.

Conclusion: This study showed that among the four areas of barriers to effective nurse-patient communication, nurses identified the area of job characteristics as the most critical barrier. Also, the patients emphasized more factors in the scope of individual and social aspects. These obstacles should be brought to the attention of nursing officials as soon as possible, and necessary measures should be taken to eliminate them.

G-1259

Investigating stress, anxiety, depression and quality of life in the families of patients with covid-19 hospitalized in Boali Zahedan hospital in the winter of 2019

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Introduction: Considering the effects of COVID-19 on the mental health of the society and the increase in stress and anxiety among the people of the society, it can be said that in people who have an underlying disease, these mental tensions are more than others. Therefore, the study was conducted with the aim of determining the level of stress, anxiety, depression and quality of life in the families of patients with Covid-19 hospitalized in Bo Ali Zahedan Hospital in 2019-2019.

Method & material: 370 people were studied based on the entry and exit criteria in an easy and accessible way. The demographic information of the people was provided to them in the registration information collection checklists and 21-question DASS and (WHOQOL-BREF26) questionnaires. After collecting the required information, the information was entered into SPSS version 26. Descriptive statistics including frequency percentage, mean and standard deviation were used to describe the data. Kolmogorov-Smirnov test was used to check the normal distribution. Mann-Whitney Test and Chi-Square were used to analyze the data. P0.05 was considered as a significant level for data analysis.

Result: The average score of quality of life in the investigated subjects was 31.16±60.20, the average score of depression was 9.46±14.13, and the average score of anxiety was 5.30±10.31, and the average score of quality of life was 31.16±60.20 and the average stress score was 20.32±10.40. The relationship between the frequency of depression, anxiety and stress and the quality of life score with gender, marital status, education, employment status and the number of affected people from the same family was statistically significant (P0.05). But in terms of average age, the relationship was not significant (P0.05). The relationship between the average quality of life score and the state of depression, anxiety and stress in the families of patients with Covid-19 was statistically significant (P0.001).

Conclusion: Based on the results of the present study, the examined people from each family had degrees of depression (80%), anxiety (90%) and stress (75%). Also, people's quality of life was around 60%. People's mental disorders and quality of life scores were related to gender, marital status, education, employment status, and the number of people infected with Covid-19. Also, quality of life had a significant relationship with mental disorders, and the higher the degree of disorders, the lower the quality of life of people.

G-1261

Investigation the clinical self-efficacy and its relationship with psychological stress in clinical environments in the nursing students of Hamadan University of Medical Sciences in 2022

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Introduction: Nursing students in clinical environments are faced with various stressors that can affect their performance and self-efficacy and create problems in training skilled and self-efficacious nurses. Therefore, the present study was conducted with the aim of determining the relationship between psychological stress and self-efficacy in the clinical function of nursing students of Hamedan University of Medical Sciences in 2022.

Method & material: In this descriptive cross-sectional correlational study, 218 nursing students of the 2nd to 8th terms of Hamedan University of Medical Sciences were included in the study by stratified sampling method by using Morgan's table. Data collection tools included: demographic characteristics checklist, Cohen's psychological stress in clinical environment questionnaire and clinical self-efficacy questionnaire. Data analysis was done by descriptive statistics and Pearson correlation coefficient in SPSS 25 software.

Result: According to the results; the mean ± standard deviation of psychological stress scores was 63.92 ± 13.70 and clinical self-efficacy was 65.81 ± 11.05. It was also found that there is a statistically significant negative relationship between clinical self-efficacy and psychological stress of nursing students (r = - 0.25, P 0.001).

Conclusion: Higher clinical self-efficacy is effective in reducing the psychological stress of nursing students, and therefore it is recommended that professors, instructors and officials of nursing schools, with targeted programs, take measures to improve clinical self-efficacy and reduce psychological stress of nursing students in clinical environments.

G-1262

An in vitro study on the effects of curcumin in a dendrosomal nanocarrier versus oxyaliplantin on the reproduction of ovarian cancer cell line OVCAR3

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Introduction: The treatment of hyperproliferative diseases which known as cancers usually involves toxic chemotherapeutic agents that kill both tumors and healthy cells. Further, these faculties come at a high price and are not affordable by everyone. curcumin has similar properties, but it is cheaper and more effective. Unfortunately, curcumin's bioavailability and water solubility make it with limited utility. As a possible solution to these problems in this study Curcumin has been encapsulated in a dendrosomal nanocarrier and its effect on generation of OVCAR3 ovarian cancer cells was correlated with the effects of Oxaliplatin, a chemotherapy drug

Method & material: A variety of combinations of dendrosomal curcumin and Oxalipantin were used in treating OVCAR3 cells for 24, 48, and 72 hours in the presence of RPMI 1640 medium. We checked the viability of emergent unloosened cells using MTT method in the present debate.The IC50 values of dendrosomal curcumin and oxaliplatin against the ovarian cancer cell line OVCAR3 were determined at 25, 20, 15 mg/ml dendrosomal curcumin and at 250, 200, 150 mg/ml oxaliplatin after 24, 48, 72 hours by MTT method.

Result: The results of our study showed that dendrosomal curcumin decreased cellular activity in lethal cells in a combination and time-dependent manner similar to oxaliplantin. MTT assays showed that encapsulated curcumin in nanocarriers of dendrosom had the same mortality rate as regular curcumin. In addition, the balance and morale index of encapsulated curcumin is significantly higher than natural curcumin.

Conclusion: Our study showed that dendrosomal curcumin could be a promising chemotherapeutic assistant, which can work alongside chemotherapy drugs such as Oxaliplatin for the treatment of ovarian cancer

G-1263

COVID-19 survivors and deceased: comparison of personal, clinical, and paraclinical factors

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Introduction: COVID-19 disease prevention, diagnosis, and treatment require the identification of high-risk variables. Thus, in this study, personal, clinical, and paraclinical characteristics of deceased and survivors of COVID-19 patients were compared.

Method & material: This cross-sectional study was conducted in the Hamadan's hospitals of the University of Medical Sciences on COVID-19 patients from September 2021 to June 2022. A total of 1948 COVID-19 patients were included in the census. Personal, clinical, and paraclinical data were collected from the medical record. Chi-square, independent t-test, and logistic regression were used to analyze the data in SPSS version 24.

Result: Personal, clinical, and paraclinical variables differed significantly between deceased and surviving COVID -19 patients (p 0.05). Age (over 60 years), complications after COVID -19, frequent cardiopulmonary resuscitation, use of antifungal drugs, death after 72 hours of hospitalization, oxygen therapy, underlying disease, insulin, diabetes mellitus, hyperlipidemia, angiotensin II receptor blocker, acidosis, cancer, hypertension, antibiotic use, C-reactive protein, creatinine, bilateral lung involvement, and potassium were the strongest abnormal predictors of death in COVID-19 patients.

Conclusion: Identifying the differences between the deceased and the survivors of COVID-19 in terms of individual, clinical and paraclinical variables and comparing them with each other in terms of these variables; it can help in the diagnosis, monitoring, risk assessment, treatment and prevention of COVID-19.

G-1264

Evaluation of the relationship between body image satisfaction and resilience of burn patients admitted to Besat medical–educational Hospital of Hamadan city in 2022

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Introduction: Burn patients face many psychological problems such as body image disturbance following a change in their appearance. One of the things that can affect the adaptation of these patients to this problem is strengthening the components of resilience, which is defined as the positive process of adapting to the problem. Therefore, this study was conducted with the aim of determining the relationship between body image satisfaction and resilience in burn patients admitted to Besat Hospital in Hamadan, 2021-2022.

Method & material: In this cross-sectional, correlational study, 106 burn patients admitted to Besat Hospital, Hamadan, were selected and included in the study. The tools used in the study included: Demographic Information Questionnaire, Connor and Davidson Resilience Questionnaire, and Sueto and Garcia's Body Image Satisfaction Questionnaire. Data analysis was done using Stata 14 software and t-test and one-way analysis of variance.

Result: The findings of the study showed that the mean (± standard deviation) scores of resilience and satisfaction with the body image of burn patients were 56.26 (±17.61) and 59.83 (±16.98) respectively, which in terms of resilience in average level and in terms of body image satisfaction, they were below the average level. It was also found that there is a significant and positive relationship between body image satisfaction scores and resilience in patients ($r = 0.614$, p 0.001).

Conclusion: Considering the confirmation of a significant and positive relationship between resilience and satisfaction with the body image of burn patients, it is expected that health care providers, especially nurses; By providing training with the content of strengthening resilience; Take steps to improve body image satisfaction of this group of patients.

G-1265

Association between expression of TLR 3, 7, and 8 genes and severity of COVID-19

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Introduction: Innate immunity responses following the sensing of the virus signature by cellular sensors include TLRs play a vital role in the pathogenesis and outcome of viral diseases include COVID19. In this study, we aimed to investigate the expression levels of TLR3, TLR7, and TLR8 in COVID-19 patients and their correlation with disease severity and outcome.

Method & material: 75 quantitative Real-Time PCR (qRT-PCR)-confirmed COVID-19 patients were included consecutively and divided into 3 groups of mild, severe, and critical based on the severity of the disease. Also, 25 age and gender matched healthy volunteer subjects were included. PBMCs were collected from the whole blood, and RNA was extracted using commercial kit. The expression of TLR3, TLR7, and TLR8 genes was investigated using qRT-PCR technique.

Result: The mean age of the patients and healthy volunteers was 52.69±1.9 and 49.12±2.7, respectively. In each group, 13 out of 25 participants were male. The expression levels of TLR3 (p 0.001), TLR7 (p 0.001), and TLR8 (p 0.001) transcript were significantly higher in COVID-19 patients than the control group. The results also revealed that the expression levels of TLR7 and TLR8 were significantly higher in the critical and severe COVID-19 patients compared to those with mild disease (p 0.05). In addition, the result showed a significant elevate in TLR3 transcript in critical compared to mild patients (p = 0.01). Moreover, regarding the gender, the expression levels of TLR8 was significantly elevated in the male severe (p = 0.02) and critical (p = 0.008) patients than the female ones. TLR3 (p = 0.2) and TLR7 (p = 0.08) transcript were elevated in male than female but not

Conclusion: The results indicated that TLR3, TLR7, and TLR8 genes might have an important role in the severity of COVID-19 disease. Moreover, the severity of COVID-19 disease in male patients might be related to TLR8 expression levels. More studies are recommended to verify this issue.

G-1267

Advances in personalized medicine on the treatment of patients with type 1 diabetes: a systematic review study

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Introduction: Personalized-medicine is a model in which a patient's unique clinical, genetic, and environmental characteristics are the basis of treatment and prevention. Type-1-diabetes affects millions of people worldwide and requires careful management to prevent serious long-term complications, including heart and kidney disease, stroke, and vision loss. The group of type 1 diabetic patients is very heterogeneous and people with the disease in different-stages and intensities are caused by separate causes and cover diverse genetic backgrounds. The purpose of this study is to investigate the progress of personalized medicine in the treatment of type-1-diabetes patients.

Method & material: This study is a systematic review study that was conducted in-2023. Using the keywords of personalized medicine, treatment, and type-1-diabetes were checked based on the Mesh and it was done in reliable databases including PubMed, Scopus, Web of Science, and Google-scholar search-engine without a time limit. To ensure the completeness of the search results, the sources of the articles were checked and after removing the duplicate-titles from the endnote-software and checking the titles and abstracts, the related articles were checked using JBi-tools, after checking the quality of the articles, the findings were entered into the desired checklist.

Result: A total of 1463-articles were reviewed and finally, 85-studies related to our purpose were selected. The obtained results show that personalized medicine is based on the fact that each person has unique characteristics at the molecular, physiological, ecological, and behavioral levels. In the case of disease, it should be treated according to these unique-characteristics. Currently, the one-size-fits-all treatment for type-1 diabetes is exogenous insulin replacement therapy, but this approach fails to achieve optimal blood glucose control in many individuals. In the case of type-1 diabetes, much effort is now focused on risk stratification for the development of diabetes to allow preclinical diagnosis, and the use of therapies such as gene therapy, to prevent pancreatic destruction in a subset of patients. Additionally, advances in stem-cell-therapy hold promise for regenerating pancreatic tissue in some people.

Conclusion: The obtained results show that the individualization of patient treatment is one of the main-goals of the medical-field, several genes that are related to the risk of diabetes or the risk of diabetes complications have been identified by candidate gene analysis and genomic scanning. These molecular-markers, together with clinical-data and findings from proteomics, metabolomics, pharmacogenetics, and other-methods, lead to consideration of the extent to which personalized approaches to diabetes-treatment can be used and the resulting advances.

G-1268

Investigating the effect of genetic markers in the diagnosis of lung cancer: a systematic review study

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Introduction: Lung-cancer is the main cause of cancer deaths worldwide. The prognosis of lung-cancer is relatively poor and 75% of patients are diagnosed in advanced stages. The effectiveness of current lung-cancer treatment methods strongly depends on the time of diagnosis, and if the tumor is detected in the early-stages, it has a better chance of survival. Lung-cancer is the result of multistage carcinogenesis with a gradual increase of genetic and epigenetic changes. Screening for characteristic genetic-markers can enable early detection of lung-cancer. The purpose of this study is to investigate the effect of genetic-markers in the diagnosis of lung-cancer.

Method & material: This is a systematic-review-study that was conducted in2023 using keywords of lung cancer, genetic markers, and diagnosis in reliable databases including PubMed, Scopus, and Google Scholar search engine without a time limit. To ensure the completeness of the search results, the sources of the articles were checked, and after removing the duplicate-titles from the endnote-software and checking the titles and abstracts, the related articles were checked with the JBi-tool.After checking the quality of the articles, the findings were included in the desired checklist.

Result: 12870-articles were reviewed and finally, 158 articles related to the purpose of the research were selected. The results of the studies showed that the development of molecular-strategies and analytical platforms makes it possible to analyze the genomic changes that lead to the development of cancer, i.e. potential-biomarkers of lung-cancer. Biomarkers are a possible alternative to current and relatively expensive screening tools such as helical computed tomography or may allow the identification of high-risk groups for whom screening is cost-effective. In the reviewed studies, the diagnostic values of microsatellite changes, DNA hyper-methylation and p53 and KRAS gene mutations as well as the expression of microRNAs have been analyzed as potential genetic-markers.

Conclusion: The findings showed that although most lung-cancers are the result of smoking, a significant part of molecular-epidemiological-studies point to genetic-polymorphisms with high-prevalence and low-penetrance as moderators of peripheral lung-cancer-risk, and it seems that microRNAs and their expression profiles are the most they have potential diagnostic value in lung-cancer-diagnosis, but their quantification needs to be standardized.

G-1269

Investigating the occurrence of cardiac arrhythmias in people with cerebral hemorrhage between the brain tissue and the skull: a systematic review study

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Introduction: Cardiac arrhythmias are common among humans in all age ranges and may occur in people with underlying heart disease as well as in people with structurally normal hearts. Intracranial bleeding refers to any bleeding in the intracranial vault, including the brain parenchyma and meningeal spaces around it, which may cause various heart rhythm disorders and structural changes following intracranial injuries. This study aims to investigate the incidence of cardiac arrhythmias in people with cerebral hemorrhage between the brain tissue and the skull.

Method & material: This study is a systematic review study that was conducted in 1402 by using the keywords of cardiac arrhythmia, cerebral hemorrhage, and intracranial hemorrhage, it was done in reliable databases including PubMed, Scopus, Cochrane, Web of Science, Embase, and Google scholar search engine without time limit. To ensure the completeness of the search results, the sources of the articles were checked and after removing the duplicate titles from the endnote software and checking the titles and abstracts, the related articles were checked using JBi tools, after checking the quality of the articles, the findings in the checklist the target was entered.

Result: A total of 2175 articles were reviewed and finally 121 articles that were related to the purpose of the study were selected. Investigations have shown that changes in heart rhythm are observed after acute cerebrovascular accidents, which is mainly due to the disturbance in the regulation of the nervous system, which is seen in the regular pattern of the propagation of cardiac stimulation waves. Stimulation of the autonomic nervous system by stimulating the hypothalamus and increasing the level of circulating catecholamines in people with cerebral hemorrhage are two key mechanisms that cause heart rhythm disorders and myocardial muscle damage. In patients with brain damage, intracranial blood pressure changes with irregular heartbeat, which can cause the patient s death.

Conclusion: The obtained results show that the timely identification of electrocardiogram changes in people with cerebral hemorrhages is one of the effective factors in determining the prognosis and determining severity of the disease. It is better to take an electrocardiogram test when identifying a patient with cerebral hemorrhage, and if the cardiac arrhythmia is observed, necessary measures should be taken in medical centers.

G-1271

Investigating the possibility of the effectiveness of gene therapy in the treatment of cystic fibrosis of the lung (a systematic review study)

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Introduction: Cystic fibrosis is a single-gene disease caused by a mutation in the CFTR gene on chromosome 7. The main cause of death from this disease is related to chronic lung infection. Nowadays, gene therapy is an alternative treatment for genetic lung diseases, especially monogenic disorders such as cystic fibrosis. The purpose of this study is to investigate the possibility of the effectiveness of gene therapy in the treatment of cystic fibrosis of the lung.

Method & material: This is a systematic review study using the keywords of cystic fibrosis, gene therapy, effectiveness, and lung in reliable databases including PubMed, Scopus, Web of Science, and Google Scholar search engine in the period of 2019 to 2023 was done. To ensure the completeness of the search results, the sources of the articles were checked and after removing the duplicate titles from the endnote software and checking the abstracts, the related articles were checked using JBi tools, after checking the quality of the articles, the findings were entered into the desired checklist.

Result: 9357-articles were reviewed and finally, 219 related articles were selected. Therefore, the results of some studies showed that gene-therapy is currently being evaluated for a wide range of acute and chronic lung diseases. Cystic fibrosis is a severe autosomal recessive disease and is caused by a mutation of the cystic fibrosis trans membrane conductance regulator (CFTR). Although the development of gene therapy for cystic fibrosis (CF) was a high priority for many groups after gene cloning, active research in the field of CF gene therapy has recently been conducted by only a few. Although gene delivery to the lungs is difficult and meaningful clinical trials are expensive and difficult to conduct, gene therapy still holds promise for treating CF.

Conclusion: The results show that the biggest-challenge for gene-therapy is to find an ideal vector for gene transfer (CFTR) to the affected organ (lung). Due to the advances made in viral and non viral vectors, it is expected that the efficiency of gene editing will improve to clinically translatable levels and gene transfer technologies to be more effective in producing an effective gene therapy for CF.

G-1272

Investigating the role of mesenchymal stem cells in the treatment of cardiovascular diseases (a systematic review study)

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Introduction: Cardiovascular disease (CVD) is the leading cause of death worldwide, and the prevalence of heart failure (HF) has increased over time. In recent years, considerable progress has been achieved in connection with stem cells, which promises new treatment solutions for heart diseases. Mesenchymal stem cells (MSCs) are a heterogeneous subset of stromal stem cells that can be isolated from many adult tissues. Mesenchymal stem cells can interact with cells of both innate and adaptive immune systems, which leads to the modulation of several effective functions and can be used in the treatment of heart diseases. The aim of this study is to investigate the role of mesenchymal stem cells in the treatment of cardiovascular diseases.

Method & material: This is a systematic review study using the keywords of Mesenchymal stem cells, treatment, and cardiovascular disease in reliable databases including PubMed, Scopus, Web of Science, and Google Scholar search engine without a time limit. To ensure the completeness of the search results, the sources of the articles were checked and after removing the duplicate titles from the endnote software and checking the abstracts, the related articles were checked using JBi tools, after checking the quality of the articles, the findings were entered into the desired checklist.

Result: 9831 articles were reviewed and finally, 187 related articles were selected. Therefore, the results of some studies showed that mesenchymal stem cells (MSCs) are multipotent stem cells that create different lineages and have the ability to self-renew. Mesenchymal stem cells can be isolated from various tissues such as the umbilical cord, endometrial polyp, menstrual blood, bone marrow, adipose tissue, etc. The administration of mesenchymal stem cells (MSCs) to diseased hearts improves cardiac function and reduces scar size. These effects occur through stimulation of endogenous repair mechanisms, including regulation of immune responses, tissue perfusion, inhibition of fibrosis, and proliferation of quiescent cardiac cells, although rare events of differentiation into heart and vascular components have also been described in animal models.

Conclusion: The results show that, while these advances have the potential for stem cell therapy, the goal of complete heart recovery has not yet been achieved in clinical studies. The multipotent properties of MSCs make them an attractive choice for the possible development of clinical applications. To achieve this goal, new cell-based therapeutic approaches are needed.

G-1273

Investigating the use of artificial intelligence in the medical diagnostic laboratory during the coronavirus pandemic: A systematic review study

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Introduction: In December-2019, the emergence of acute-respiratory-syndrome in China led to the global spread of the coronavirus and became an international-public-health-issue and affected people all over the world. The transmission power of the new-coronavirus and its wide spread has drawn the attention of experts to the use of artificial-intelligence to deal with this epidemic, control and crisis management. Artificial intelligence is a software that, in addition to analyzing-data, can make-decisions, it is actually an imitation of expert human-intelligence. During the corona virus epidemic, in addition to early diagnosis, the use of artificial intelligence in the laboratory can also be used for screening people and different communities due to good reproducibility. Artificial-intelligence is rapidly being developed and implemented throughout healthcare-systems, and as an essential-part of these-systems, laboratories will see significant growth in Artificial-intelligence-applications. This-study-aims to investigate the application of artificial-intelligence in the medical-diagnosis-laboratory during the corona-virus-epidemic.

Method & material: This study is a systematic-review-study that was conducted in-2023. Using the keywords of artificial intelligence, diagnostic laboratory, and coronavirus, were checked based-on-the-Mesh and it was done in reliable-databases including PubMed, Scopus, Web of Science and Google-scholar-search-engine without a time-limit. To ensure the completeness of the search-results, the sources of the articles were checked and after removing the duplicate-titles from the endnote-software and checking the titles and abstracts, the related articles were checked using JBi-tools, after checking the quality of the articles, the findings were entered into the desired checklist.

Result: A total of 2956-articles were reviewed and finally 132-articles were selected that were related to the purpose-of-the-study. The studies show that the strategies of using potential technologies will bring better-benefits and these information-technology-strategies can be used either to control the-epidemic or to support the community-confinement during the epidemic, which helps to control-the-spread-of-infection. Using artificial-intelligence in medical-laboratories can reduce-errors and save-time. The advantages of using artificial-intelligence in the covid-19-disease in the areas of rapid-identification and treatment, help in rapid-diagnosis, monitoring of treatment-stages, epidemiology and tracking of infected-areas, forecasting the pandemic-situation, managing the pharmaceutical-system, predicting and monitoring the spread of covid-19. Also, a high-potential for the use of artificial-intelligence in clinical and research-laboratories has been estimated. Another potential of using artificial-intelligence is in the field of predicting mutations that may occur in viruses in the future and cause new-symptoms and complications of the-disease.

Conclusion: The results show that the use of artificial-intelligence in medical-laboratories has accelerated the testing of coronavirus and reduced-errors, and clinical-laboratories will routinely use artificial-intelligence in-the-future.

G-1274

Probability of survival in patients with hypo-plastic left heart syndrome [HLHS], a cyanotic congenital heart disease: a systematic review study

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Introduction: Hypo plastic left heart syndrome is one of the most complex congenital heart diseases, which is almost fatal if left untreated. Diagnosis is usually made before or shortly after birth. The variety and severity of clinical manifestations depend on the cardiac structures involved and their functional impact. Congenital cyanotic diseases usually include several congenital disorders, and in most of them, the structure of the heart or the main-vessels is seriously damaged, and the surgery and repair of these types of diseases are difficult and multi-stage. The aim of this study is to investigate the probability of survival in patients with hypo-plastic left heart syndrome.

Method & material: This is a systematic-review-study using the keywords of Hypo-plastic left heart syndrome, Congenital heart disease, Cyanotic heart disease in reliable databases including PubMed, Scopus, Web-of-Science, and Google-Scholar search engine in the period of 2018 to 2023 was done. To ensure the completeness of the search results, the sources of the articles were checked and after removing the duplicate titles from the endnote-software and checking the abstracts, the related articles were checked using JBi tools, after checking the quality of the articles, the findings were entered into the desired checklist.

Result: 21340-articles were reviewed and finally 421 related articles were selected. Studies show that with continuous improvement in outcomes over the past-six-decades, improved diagnostic methods, greater understanding of single ventricle physiology, prenatal diagnosis, good neonatal care, improved surgical skills, specialized postoperative care, and unique strategies for Interstage surveillance all have helped to increase the probability of survival to adulthood. However, associated morbidity and mortality remain significant. Although the principles of staged surgical palliation of hypo-plastic-left-heart-syndrome are well established, there's considerable variation in surgical-technique and management between centers, and several controversial aspects remain unresolved.

Conclusion: The obtained results show that there has been a lot of progress in treatment options, but still, for some reasons, this disease cannot be completely treated and normal life cannot be expected from those suffering from this syndrome. It's hoped that in the future it will be possible to new-methods to increase the probability of survival in these patients even more.

G-1275

A review of Mesenchymal stem cell application in the treatment of diabetes mellitus

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Introduction: Nowadays, diabetes mellitus (DM) is one of the major public health problems with the incidence of more than 400 million people worldwide. T1MD is an autoimmune disorder developed by the destruction of pancreatic beta cells which reduced insulin production, and T2MD reveal by the resistance of body cells to peripheral insulin. Recently, stem cells have opened new horizons for the treatment of diabetes. There are different types of stem cells, however, mesenchymal stem cells (MSCs) have been attracted more attention due to their many advantages, such as availability and ease of harvesting, rapid proliferation and immunomodulatory properties. In this review article, we examine the use of mesenchymal stem cells in the treatment of DM.

Method & material: In this review article, we searched 4 Databases (PubMed, Web of Science, Scopus and google scholar) based on the search strategy from 2006 to 2023 by following MeSH keywords: mesenchymal stem cells, stem cells therapy, Diabetes mellitus, insulin.

Result: Although exogenous insulin and oral hypoglycemic agents are useful in lowering blood glucose levels in diabetic patients, but unable to mimic endogenously secreted insulin and may lead to hypoglycemic coma and are. To overcome some problems such as deaths in relation to surgery, the requirement for lifelong immunosuppression and availability of donor tissue. it is necessary to develop new approaches to expand the existing beta cells in the body or by providing exogenous insulin-producing stem cells for treatment. The result of various studies showed that mesenchymal stem cells are capable to differentiate efficiently to insulin-producing cells IPC. Adipose-derived stromal cells ADSCs, Human Placenta-Derived MSCs hPDMSCs, Human umbilical cord blood UCB, Pancreatic stem cells, Pancreatic progenitors derived from embryonic stem cells ESCs, cells differentiated with induced pluripotent stem cells iPSCs and mature stem cells including hematopoietic stem cells HSCs have the capability to produce IPC.

Conclusion: Although MSCs have tremendous therapeutic potential for the treatment of diabetes, limitations such as poor engraftment, limited differentiation under in vivo conditions and unfavorable secreted cytokines need to be overcome to increase their clinical application. Spontaneous transformation of MSCs into malignant cells and promotion of tumor growth are possible mechanisms. The remarkable inhibitory effects of MSCs on the proliferation and function of major immune cell populations may also play an important role in cancer progression as well as in helping non-MSC-derived tumors escape immune surveillance.

G-1276

A case report of misdiagnosis in a patient with Bernard–Soulier syndrome and the course of treatment

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Introduction: Bernard-Soulier syndrome is a blood coagulation disorder caused by genetic mutations encoding in GPIb-alpha (GPIBA), GPIB-beta (GPIBB), and GPIX (GP9) which are subunits that make the GPIb-IX-V complex. Impaired platelet activation, poor adhesion, and subsequent deficiency of clot formation capacity may be caused by mutations in encoding genes. A 22 years old Iranian woman with BSS presented to the outpatient department complaining of prolonged vaginal bleeding. In the initial examination, the patient was conscious. Petchia rashes were visible on the groin, abdomen, and under the eyes. According to the results of the CBC test, the patient's hemoglobin and platelet levels were very low. The patient had continuous bleeding for 48 days, which was treated by prescribing a 21-day course of LD tablets and tranexamic acid capsules. Ferinject ampoules and ferrous sulfate capsules were prescribed to treat anemia.

Method & material: After providing information about how to conduct the study and the required information, the consent form was provided to the patient and after obtaining her permission; Information was collected in two ways in the form of interviews and examination of records and medical documents.

Result: When the patient was hospitalized at the age of 16 due to severe vaginal bleeding and did not respond to ITP treatments, Bernard-Soulier syndrome was diagnosed. Immunosuppressive drugs were stopped and contraceptives were started to control bleeding. The patient's severe anemia was controlled by administering intravenous and oral iron supplements. Continuous checkup was recommended.

Conclusion: The patient was diagnosed as a case of ITP when she was referred to hospital due to hematuria at the age of 4 months. She repeatedly had long and severe bleeding until she underwent splenectomy at the age of four after uncontrollable epistaxis. The surgery failed to alleviate the symptoms and did not result in any improvement. The patient remained afflicted with severe bleeding and consequently required frequent hospitalization. Routine ITP treatments were performed for her every time. Finally, at 16, The patient experienced menometrorrhagia, which was followed by convulsions. After conducting tests, Bernard Soulier syndrome was diagnosed.Numerous patients with BSS are diagnosed with immune thrombocytopenia due to comparable presentations. Many of these patients perform splenectomy surgery however it is not required in the treatment of BSS. It is important to carefully examine the symptoms and distinguish between Bernard-Soulier syndrome and Immune thrombocytopenic purpura (ITP) to ensure proper treatment.

G-1277

The effect of honey dressing on diabetic foot ulcers: a systematic review

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Introduction: The incidence of diabetes has significantly increased in the last two decades. In 2000, an estimated 171 million people over 20 years old had diabetes worldwide. This number is expected to reach 366 million in 2030. Diabetic foot ulcer is a chronic complication of diabetes, causing psychological and economic burden on individuals, families, and the healthcare system. Ischemia, neuropathy, and infection are three major pathological factors that contribute to diabetic foot complications. While antibiotics are commonly used to control wound infections, a growing number of pathogens have become resistant to them. As a result, non-antibiotic treatments are more widely accepted by patients as a means of preventing further resistance. Recent published clinical trials have shown that honey dressing can affect foot ulcer in diabetic patients. However, findings from studies are conflicting. Therefore, the purpose of this article was to review the evidences on the effect of honey dressing on DFU.

Method & material: A systematic search was conducted in the online databases including PubMed, Web of science, Scopus and google scholar up to 2023 without publication date or language restrictions. RCTs, which evaluated the effect of honey dressing on foot ulcer in diabetic patients were included. The search terms were used in this review including: Honey , Diabetic foot ulcers and Chronic wound . Screening was done by two independent reviewers. Quality assessment was done using the Cochrane risk of bias tool.

Result: Finally, six eligible RCTs met our inclusion criteria for the systematic review. Out of the six studies, four reported that honey dressing, improved wound healing in diabetic patients compared to the control group. In addition, three RCTs showed that honey dressing, reduced the wound healing duration in diabetic patients, compared to the control group. Also, one study showed a reduction in bacterial load after use of honey dressing in comparison to the control group. Additionally, the results of another RCT, showed an improvement in length, width and depth of the foot ulcer in diabetic patients

Conclusion: Considering the results of this review, honey dressing might be effective for the improvement of foot ulcer among diabetic patients. However, it seems necessary to conduct more high quality RCTs to ensure this protective effect on wound healing in diabetic or non-diabetic patients and determine the exact possible mechanisms.

G-1279

Spiritual hope: Avicenna's Viewpoint in Persian medicine

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Introduction: The concept of hope, and its relationship with spirituality, has faced fluctuations and challenges in the history of thought. Such a connection in today's world may lead us to the concept of spiritual hope .In Persian medicine, these types of connections are mentioned because of their holistic approach, and the deep connection between the human body and spirit is always mentioned. In this regard, we can refer to Avicenna's poems as one of the elders of Persian medicine at the beginning of the medical book Al-Orjuza Fi Al-Teb who introduces himself as a physician hoping in God who only asks for His help.The purpose of this research is to determine the role of spirituality as a correlate of the concept of hope in Avicenna's Viewpoint

Method & material: The current research is a part of Exploring the Concept of Hope from Avicenna's Point of view in Persian medicine which is based on Directed Content Analysis by Elo et al. (Elo&Kingas.2008), focusing on the book Al-Qanoon Fi Al-Teb), in the software of the comprehensive library of traditional and Islamic medicine, Noor, (version 1.5) by searching for keyword hope and other keywords related its, such as despair, fear, wish, hopeless, desire, Optimism, done then the resulting expressions were entered into the qualitative content analysis software MAXQDA2020, then the extracted codes were categorized in the form of subcategories, categories, and themes

Result: In Avicenna 's view, hope has a spiritual dimension in four categories: Neghahe Tohidi (Monotheistic View), Hekmate Elahi (Divine Wisdom), Tavakol (Trust), and Shokr (Gratitude). The category of Neghahe Tohidi (Monotheistic View): paying attention to the effectiveness of measures by God's permission.The category of Hekmate Elahi (Divine Wisdom): assurance of the existence of many divine wisdoms in all matters of existence.The category of Tavakol (Trust): constant reliance on God is one of the signs of a hopeful person, the need for trust at the same time as trying and carrying out treatment orders, trusting in God is one of the factors in creating a Happiness.The category of Shokr (Gratitude) for blessings (Hamd): praise God for the shine of the blind heart

Conclusion: The correlation of hope with spirituality shows Avicenna's special conceptualization.Therefore, in addition to expanding this closeness in the scope of general human life, in the specialized scope as well, according to the cultural conditions of Iran, spirituality can be added to the existing intervention models to treat despair in clinical problems.

G-1280

The Effect of Virtual Training on Coping Strategies with Job Stress Among Staff of The Operating Rooms of Teaching Hospitals of Iran University of Medical Sciences

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Introduction: Job stress is one of the problems that decrease the performance of individuals. one of the way to improve job stress is training. there are various types of training, including virtual training. the purpose of this study was to investigate the effect of virtual training on coping strategies with job stress in the operating room staff of iran university of medical sciences.

Method & material: This quasi-experimental study was performed with the participation of 176 Operating Room Technologists and Anesthesia Technologists in 2018. sampling was done by simple random method with appropriate allocation. samples were given virtual training on coping strategies with job stress during six sessions via mobile phone applications. data collection tool was demographic data form and expanded nursing stress scale (ENSS). paired t-test was used for data analysis. data were analyzed using SPSS software version 16.

Result: The results showed that job stress Operating Room Technologists and Anesthesia Technologists significantly decreased after virtual training on coping strategies with job stress (P 0.001). However, there was no difference between job stress of Operating Room Technologists and Anesthesia Technologists after virtual training on coping strategies with job stress (P = 0.555).

Conclusion: This study showed virtual training on coping strategies with job stress were effective on job stress in operating room staff (Operating Room Technologists and Anesthesia Technologists) and reduced significantly their job stress.

G-1281

The Effects of Exosome Therapy in Animal Models of Parkinson's disease. Meta-Analysis

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Introduction: The effect of exosome has been investigated in several studies in animal models of Parkinson's disease (PD), But its therapeutic effects are debated. In this meta-analysis, we examined the effectiveness of this method

Method & material: In this study, a search was made in PubMed, Scopus and Web of Science databases January 1, 1980 to January 1, 2023.articles that used exosome for animal models of Parkinson disease were selected. The mean and standard error of apomorphine or amphetamine-induced rotation data were subjected to meta-analysis. Two authors independently screened the articles based on inclusion and exclusion criteria. All statistical analyses were conducted using CMA software

Result: Significant improvement was observed in the overall pooled standardized mean difference (SMD) between animals treated with exosomes compare to control (1.08 for apomorphine-induced rotation, P .001; 1.35 for amphetamine-induced rotation, P .001)

Conclusion: This meta-analysis revealed that treatment with exosomes significantly improves neurological outcomes in rodent animal PD models.[4] Exosomes treatment showed a significant effect size in the behavioral deficit recovery of motor function in animal PD models

G-1282

Carpopedal spasm and right hemiparesthesia due to gallstone excretion in a 25-year-old woman, a case report

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Introduction: Gallstone disease is a common condition with significant social and economic costs. While most cases involve uncomplicated stones in the gallbladder, stones in the common bile duct (CBD) can cause complications such as cholecystitis, biliary colic, jaundice, and acute pancreatitis. However, to the best of our knowledge, carpopedal spasm and right hemiparesthesia caused by gallstones have not been previously reported.

Method & material: This article describes a 25-year-old healthy woman who had ongoing biliary colic pain for two months during antibiotic therapy. Imaging showed a 6 mm gallbladder stone and a 3 mm CBD stone. before the ERCP, she experienced sudden right-sided hemiparesthesia and carpopedal spasm. During this episode, the patient experienced severe pain in all four limbs but remained conscious. Subsequent ultrasound revealed that a 3 mm stone had been removed from the CBD area, after which the patient's blood tests returned to normal levels, and her clinical symptoms resolved. Two months later, similar symptoms recurred during the excretion of gallstones after laparoscopic cholecystectomy. Other potential causes were ruled out.

Result: case report

Conclusion: This case emphasizes the significance of swiftly identifying and managing potential complications in patients with gallstones. Early diagnosis and proper management of symptoms are critical for successful outcomes. Additionally, further study into the pathogenesis of carpopedal spasm and right hemiparesthesia caused by gallstones may assist in improving understanding and management of this condition. The case underscores the importance of being meticulous in diagnosing and treating medical conditions, even those that are rare.

G-1284

Effects of Exosome on Cognitive Recovery in Animal Models of Alzheimer's disease: A Systematic Review and Meta-Analysis

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Introduction: Alzheimer's is a neurodegenerative disease that usually starts slowly and gradually worsens. We did a systematic review and meta-analysis of data from eligible studies to study the impact of exosomes on cognitive recovery in animal models of AD

Method & material: A total of 15 eligible studies were included for Meta-Analysis by searching PubMed, EMBASE, and Web of Science up to May 13, 2023. The mean and standard error of memory function test data were subjected to meta-analysis. Two authors independently screened the articles based on inclusion and exclusion criteria. All statistical analyses were conducted using CMA software

Result: Significant improvement was observed in the overall pooled standardized mean difference (SMD) between animals treated with exosomes compare to control (the escape latency (SMD = ?0.98, 95% CI = ?1.24 to ?0.58, p .00001). Publication bias was assessed using funnel plots and Egger's test

Conclusion: Exosome therapy Improves cognitive impairment in experimental AD

G-1285

Evaluation of pain catastrophizing severity and its relationship with cognitive flexibility and self-efficacy in rheumatoid arthritis patients in Birjand in 2022

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Introduction: Chronic pain caused by joint inflammation is a significant problem for patients with rheumatoid arthritis. High levels of pain catastrophizing can exacerbate negative consequences such as anxiety, depression, and reduced ability to control pain. Therefore, identifying factors related to pain catastrophizing is crucial. The purpose of this study was to determine the severity of pain catastrophizing and its association with cognitive flexibility and self-efficacy among patients with rheumatoid arthritis in Birjand city in 1401.

Method & material: This correlational descriptive study collected data from rheumatoid arthritis patients referred to a rheumatology clinic located in Birjand city in 1401. Data collection tools included a demographic information form, the pain catastrophizing scale developed by Sullivan et al. (1995), the cognitive flexibility tool introduced by Dennis et al. (2010), and the arthritis self-efficacy scale developed by Lorig et al. (1989). All statistical analyses were performed using SPSS version 18.0 with a significance level set at P 0.05.

Result: The study involved 220 patients with an average age of 53.25±12.41 years. The majority of patients (61.8%) reported high pain catastrophizing. The study found that cognitive flexibility significantly decreased from patients with low pain catastrophizing to the very high pain catastrophizing group. except for the group with high and very high pain catastrophizing, total self-efficacy, functional self-efficacy, and self-efficacy of other symptoms significantly decreased from the group with low to the group with very high pain catastrophizing, respectively. There was significant inverse relationship between pain self-efficacy and age, as well as years of disease involvement. total self-efficacy and all its dimensions showed a statistically significant difference at different educational levels. also a significant difference in terms of education level, type of job, and intensity of catastrophic pain. Finally, the study found that cognitive flexibility, self-efficacy education level, and disease duration predicted 75% of the variance in pain catastrophizing scores.

Conclusion: Healthcare providers should focus on improving pain self-efficacy and cognitive flexibility in patients with rheumatoid arthritis to optimize pain catastrophizing and reduce adverse consequences. Psychosocial interventions may be effective in achieving this goal.

G-1286

The effect of implementing Fanny and George Shaftel role-playing model on the skill and knowledge of patient education of undergraduate nursing students

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Introduction: Nursing education requires innovative teaching methods to facilitate the development of patient education skills among nursing students. The role-playing teaching model is in line with the principles of adult learning and the experiential and social-cognitive learning theories of Bandura. This study aimed to determine the effectiveness of Fanny and George Shaftel's role-playing model in improving the patient education skills and knowledge of undergraduate nursing students.

Method & material: A semi-experimental study was conducted on two groups of pre-test and post-test types, consisting of seventh and fifth-semester nursing students at Birjand University of Medical Sciences during the first semester of 1400-1401. The students were divided into role-playing and control groups based on their internship groups. Before training, both groups undertook a pre-test. The role-playing group underwent training based on the nine stages of the Shaftel model. Both groups undertook a post-test, including a practical test using a standard patient to evaluate students' patient teaching skills and knowledge. Statistical tests such as Chi-square, Mann-Whitney, Wilcoxon, independent t, and analysis of variance were used for data analysis in SPSS software (version 18). The significance level was set at P 0.05.

Result: The two groups were found to be homogeneous in terms of baseline demographic and academic characteristics. The mean scores for patient education skills in the intervention group before and after training were 7.8±4.15 and 12.1±4.12, respectively, while for patient education knowledge, they were 8/8±4/45 and 11/3±4/27, respectively. The test results showed that the mean score for patient education skills and knowledge level increased significantly in the intervention group compared to the control group (p0.05).

Conclusion: The study findings suggest that implementing the Shaftel role-playing model and using a standard patient can effectively enhance the patient education skills and knowledge of undergraduate nursing students. Therefore, it is recommended that nursing educators incorporate the role-playing model and standard patients into their teaching practices to improve nursing students' patient education skills and knowledge. Further research is recommended to investigate the long-term effects of this teaching method on the practical performance of nursing students in real-life clinical settings.

G-1289

Comparing Anxiety and Depression of Nurses Working in COVID-19 Wards with Other Wards of Birjand Valiasr Hospital in 2022

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Introduction: The emergence of the Coronavirus in China in December 2019 led to a global pandemic that put immense pressure on healthcare systems worldwide. In this high-risk situation, it is crucial to identify individuals at different levels of society who are vulnerable to psychological disorders and mental health hazards. Nurses, given their critical role in providing care during the Coronavirus outbreak, should be considered a particularly high-risk group. Therefore, appropriate psychological solutions and techniques must be implemented to maintain their mental health. This study aims to compare the anxiety and depression levels among nurses working in COVID-19 wards with those working in other wards at Valiasr Birjand Hospital in 2022.

Method & material: A cross-sectional study was conducted with a descriptive-analytical approach on nurses working in COVID-19 wards and other wards of Birjand Valiasr Hospital in 2022. Random sampling was used to select 126 subjects for each group from lists of nurses working in coronavirus and non-coronavirus wards. The questionnaires included demographic and occupational information, the Beck Depression Inventory (BDI-13), and the Corona Disease Anxiety Scale. Data analysis was performed using SPSS V18 software, with a significance level set at less than 0.05.

Result: The study found that the mean mental anxiety score and total anxiety were significantly higher among nurses working in the coronavirus wards compared to those working in non-coronavirus wards (P0.05). However, there was no statistically significant difference in the mean score of physical anxiety and depression between the two groups of nurses in the study.

Conclusion: The study's findings indicate a higher prevalence of psychiatric disorders such as anxiety among medical staff who work directly with infectious diseases such as COVID-19. This highlights the need for planning and adopting necessary policies and strategies to prevent the formation and emergence of these disorders among this group. Ultimately, this could help prevent a decline in their occupational and family functioning and their overall health.

G-1290

Examining the status of health tourism in Iran

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Introduction: Today, in the global competition market, countries are looking for sustainable sources of income and reducing reliance on exhaustible resources, and in this, tourism and its various types have a very special place. Health tourism (medical tourism) is one of the types of tourism and refers to conditions in which people travel for medical treatment. The purpose of this study is to examine the health tourism situation in Iran because the development of the tourism industry as a strong source of foreign exchange can lead to the country's economic prosperity.

Method & material: In this article, a review of the articles available in Google Scholar databases PubMed and Irandoc were used, and using the keywords health tourism , Iran , a total of 83 results were obtained, among which 20 original articles were examined.

Result: The results indicate that despite having high capacities of tourism in the health sector and having sufficient potential for the development of health tourism, Iran is facing a lack of infrastructure facilities and the absence of coherent plans for the direction and management of health tourism. However, according to a research conducted to evaluate the potential of Shiraz city in this field, it shows that the average monthly visit of 15-50 foreign patients in that hospital, most of the patients were from Arab countries. The reason for these visits is also cultural proximity. Religion and trust in Iranian doctors have been expressed. Also, the quality of health care and the level of expertise of doctors, along with the costs of health care, are important factors in this industry. It should be noted that our country, considering its strengths and opportunities takes over larger percentage of this international market every year.

Conclusion: We know that our country has the ability to grow as much as possible in this field, as a result, we can achieve this by changing the infrastructure, proper planning and investing in this industry. Also, considering the effects of virtual networks, they can be used to introduce and promote more people in the world with health tourism in Iran and its benefits.

G-1291

Extraction, isolation and identification of secondary metabolites from marine coral Sarcophyton spp

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Introduction: Marine organisms, comprising more than half of the total global diversity, offer an enormous source of potentially novel and biologically active compounds. Among them, soft corals constitute an important group of marine invertebrates widely distributed in the coral reefs of the world's oceans. The Persian Gulf is also one of the largest havens for marine organisms such as corals, small ornamental fish, marine sponges, edible and non-edible fish, and many other marine organisms. Many studies have revealed that soft corals of the genus Sarcophyton contain considerable new and novel compounds with various biological activities. This study investigated the phytochemical evaluation of soft coral, Sarcophyton spp.

Method & material: Coral Sarcophyton spp. were dried after collection. 700 g of the dry weight of the soft coral was extracted by the methanol : ethyl acetate (1:1) maceration method. The extract obtained by the Kopchan method was divided into hexane, dichloromethane, butanol, and water partitions. The fractionation of hexane crud extract (2.5g) was fractionated over a flash silica column to yield 9 fractions, and 2% MEOH in DCM was used as solvent. The fractionation of DCM crud extract (2.5g) was fractionated by flash column chromatography using silica and 2% MeOH in DCM to yield 11 fractions. Finally, fractions were subjected to HPLC, and for further purification, Sephadex LH-20 was used. The isolated compounds were characterized by NMR.

Result: 5cemberane diterpenes, (+)sarcophine, and their hydroxy derivatives were isolated from soft coral. It was the first time that 9a- hydroxysarcophine, 9a-hydroxysarcophine, 10a-hydroxysarcophine, and 10a-hydroxysarcophine were isolated from nature.

Conclusion: A large number of cembranoid diterpenes and other related metabolites have been isolated and identified from marine soft corals, especially from the genera Lobophytum, Sarcophyton, and Sinularia. All of which belong to the family Alycyoniidae within the order Alcyonacea. This group of compounds is very potent and has been reported to exhibit a range of biological activities, including antitumor, ichthyotoxic, anti-inflammatory, neuroprotective, antibacterial, antiangiogenic, antimetastatic, and cytotoxic properties.

G-1292

Vitamin E intake and lipid profile in adults: systematic review and meta-analysis of randomized clinical trials

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Introduction: Findings on the effect of vitamin E intake on lipid profile are conflicting. This systematic review and meta-analysis of randomized controlled trials (RCTs) were conducted to synthesize available evidence on the effect of vitamin E intake on blood lipids in adults.

Method & material: Online databases including PubMed, Scopus, ISI Web of Science, and Google Scholar were searched to identify relevant studies published until May 2021, using relevant keywords.

Result: In total, 82 RCTs with a total sample size of 5,076 adults, aged ≥18 years, were included. Combining results from 75 RCTs on triglyceride (TG), 78 RCTs on total cholesterol (TC), 69 RCTs on low-density lipoprotein cholesterol (LDL-C), and 71 studies on high-density lipoprotein cholesterol (HDL-C) showed no significant effect of vitamin E on these blood lipids. However, after excluding publication bias from the analyses, a significant effect of vitamin E intake on serum concentrations of TG (mean difference (MD): -13.86, 95% confidence interval (CI): -18.89, -8.84, P0.001), TC (MD: -11.60, 95% CI: -15.04, -8.16, P0.001), and LDL-C (MD: -8.91, 95% CI: -12.02, -5.80, P0.001). Also, we found a beneficial effect of vitamin E intake on serum TC levels in studies that administered a low dose of vitamin E (500 mg/day) and on serum HDL-C levels among studies that presented adjusted effect sizes. Such beneficial effects were also seen on

Conclusion: We found a beneficial effect of vitamin E intake on blood lipids after excluding publication bias. Further studies are needed to confirm this effect.

G-1293

Modifying PER–CRY–CK1 complex with the aid of short engineering peptide to attenuate sleep disorder in Alzheimer's disease; In silico study

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Introduction: Alzheimer's disease (AD) known as the progressive neurodegenerative disease, demands novel therapeutic approaches to alleviate its symptoms. One of the overt clinical symptoms of this disease is illustrated by sleep disorder. Since casein kinase 1 delta (CK1) is hypothesized to bind to the PER-CRY complex in a shorter period compared to the normal state, this study aims to design a short peptide as a novel medication to prolong the PER-CRY complex stability.

Method & material: The amino acids involved in the interaction between CK1 and PER-CRY complex were identified by HEX and LigPlot+ software. Subsequently, the sequence of the CK1 in the area with the highest interaction is truncated. The interacted amino acids were mutated through PyRosseta with the backbone protocol to maximize the binding efficiency. Besides, the PDB file of the CK1 and PER-CRY complex was converted to the martini coarse-grained to form a complex comprised of proteins and engineering peptides. The complex's RMSD, RMSF, RG, and MMPBSA were calculated to evaluate whether the selected peptide could increase the stability of the complex.

Result: The result of the study declared that the new synthetic peptide could bind to the PER-CRY as a mediator to increase the total energy of the complex. The RMSD of the complex was lower in comparison to the state that the stabilizer peptide does not exist. Moreover, the results of the free-binding energy suggested a more stable state of the complex. The mutant peptide evaluation in VaxiJen v2.0 depicted a rather high score, which suggested that the stabilizer peptide has the potential to stimulate the immune system. In contrast, the NetCTL server did not identify MHC ligands for the peptide sequence.

Conclusion: The synthetic peptides particularly bind to the CRY-PER complex with high affinity. Hence, injection of the short synthetic peptide into the CSF is assumed to fix the PER-CRY instability. Since the mutant peptides are usually unstable, it is suggested to perform a nuclear magnetic resonance (NMR) technique to validate the 3D structure of the suggested peptide. Eventually, it is suggested to perform an in vivo study to justify the in-silico results.

G-1294

Protective effect of pomegranate extract on oxidative stress of lead acetate toxicity in rats

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Introduction: Introduction: lead is a highly toxic heavy metal and has been shown to produce a wide range of biochemical and physiological dysfunctions. Several agents, chemical or natural, have been used to reduce detrimental effects of lead in animals and humans. In this study, the beneficial effects of pith and capillary membrane of aqueous pomegranate extract on lead-induced oxidative stress was evaluated.

Method & material: Methods and Materials: Thirty-two Wistar rats were randomly divided into 4 groups of 8. Group one received no treatment or lead acetate. Animals of group two exposed to 1000 ppm of lead acetate in drinking water for 35 days. Group three and four exposed to lead acetate as the rats of group two, but treat concurrently by pomegranate extract twice a day with dose of 100 and 200 mg/kg respectively. In the following, biochemical parameters including urea, creatinine, bilirubin, AST, ALT and GGT was evaluated in serum of rats in different groups. In addition, Oxidative stress parameter including MAD, FRAP, SH and PAB were measured in their serum and tissues liver, kidney and brains.

Result: Results: Weight changes of rats in consecutive weeks showed significant differences among groups. The results showed that the administration of aqueous pomegranate extract following subclinical lead poisoning in rats can reduce oxidative stress parameters and increase antioxidant capacity in blood and brain, liver and kidney tissues, while no change in blood biochemical parameters was observed. In addition, lead caused a significant increase in the amount of bilirubin, but the consumption of aqueous pomegranate extract did not have much effect on the amount of that. Biochemical parameters didn't show any significant difference between groups. The data showed significant effects of lead toxicity on oxidative stress. Administration of pomegranate extract in rats exposed to lead, significantly decreased oxidative effects of lead toxicity. This effect was more evident in brain than liver and kidney. Lead increases the peroxidation of fats, decreases the antioxidant power, and decreases the total amount of thiol groups in

Conclusion: Conclusion: The results of this study showed pomegranate extract has beneficial effects on improving antioxidant defense of the body and may be useful to ameliorate the oxidative stress of the lead intoxication

G-1295

the relationship between post myocardial infraction depression and adherence to treatment in patients referred to Heshmat rasht hospital and Heshmatieh sabzevar hospital

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Introduction: Myocardial infarction, commonly known as a heart attack, occurs due to a reduction or complete cessation of blood flow in a section of the myocardium. Given the changes that occur in the course of individuals' lives after a heart attack, the presence of depressive symptoms among post-myocardial infarction patients is quite common. The presence of depression in these patients can affect their adherence to treatment. This study aimed to examine the relationship between post-myocardial infarction depression and adherence to treatment regimens.

Method & material: This descriptive-analytical cross-sectional study was conducted on 190 myocardial infarction patients who were continuing their treatment at home. Individuals with severe depression were excluded from the study. Data collection was done using the Beck Depression Inventory questionnaire, Medication Adherence Report Scale, and demographic questionnaire. The collected data were analyzed using SPSS version 16.

Result: In this study, the mean age of the research participants was 52.9±78.53 years, Among the 190 myocardial infarction patients, 75.3% had no or minimal depression, 13.6% had mild depression, and 11.1% had moderate depression. The findings indicated that the majority of the research subjects had difficulties in adhering to the treatment regimen. However, the mean score of adherence to the treatment in the group of patients with post-myocardial infarction depression was higher than the group without depression. Moreover, as the level of depression increased from mild to moderate in patients, the level of adherence to the treatment also increased. The results of Pearson's correlation coefficient indicated a significant moderate association between adherence to the treatment and post-myocardial infarction depression (r=0.32). There was a significant association between post-myocardial infarction depression and the duration of myocardial infarction (p-value ≤ 0.05).

Conclusion: It seems that the experience of myocardial infarction patients of a painful heart attack and the proximity to death can act as motivational factors, leading these patients to have a higher adherence to their treatment compared to patients with minimal depression.

G-1297

Diabetes, Diet, and Data: The Synergy of Artificial Intelligence and Personalized Nutrition

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Introduction: Diabetes is a global epidemic and one of the most prevalent chronic diseases, with significant increases in prevalence over the last three decades. According to WHO statistics, 442 million people worldwide have type 2 diabetes and this disease is attributed to 1.5 million deaths each year. Diabetes not only affects the body's metabolism by impairing glucose regulation but also causes serious damage to organs, including the heart, eyes, and kidneys. Personalized nutrition is among the practical solutions for managing diabetes as individual responses to food vary. By using artificial intelligence to analyze individual data, the role of personalized nutrition in changing glycemic response can be defined more clearly. Controlling diabetes can help prevent related diseases and reduce global mortality. Today, the use of AI-based personalized nutrition solutions that consider individual differences and data is becoming a more practical approach compared to other solutions.

Method & material: We conducted a comprehensive systematic search in three databases, PubMed, Scopus, and Web of Science, using keywords such as Diabetes Mellitus, Personalized Nutrition, Individualized Nutrition, Artificial Intelligence, and Pattern Recognition, covering results up to June 2023. Two independent reviewers reviewed the results, and studies that used methods other than artificial intelligence for diagnosing and preventing coronary artery disease were excluded. Finally, studies that met the necessary inclusion criteria were critically appraised by two authors separately. The Rayyan platform was used for screening, and Microsoft Excel 2019 software was used to extract data related to diet and artificial intelligence diagnostic solutions.

Result: We initially retrieved 415 relevant publications from various online databases. After screening the titles and abstracts, we removed duplicate publications (n=176) and excluded 130 studies. The full texts of 54 articles were reviewed, and finally 14 studies that met the desired inclusion criteria were included in our analysis.

Conclusion: Artificial intelligence plays a significant role in personalized nutrition for managing diabetes by providing solutions that consider individual differences in dietary needs. AI algorithms can analyze large datasets of individual data, such as blood glucose levels, physical activity, and dietary intake, to identify patterns and make personalized recommendations for diet and nutrition. This approach helps individuals with diabetes achieve better glycemic control and reduce the risk of complications. Additionally, AI can help healthcare providers make more accurate and timely diagnoses and inform individualized treatment plans for people with diabetes.

G-1298

Evaluation of effect of infrapattelar adipose tissue derived stem cells at various passages on Regenerating articular cartilage

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Introduction: Cartilage degeneration is a major contributing factor to joint disabilities, particularly in the knee joint, affecting up to 80 percent of individuals in developed countries who suffer from degenerative joint disease. Current treatments for osteoarthritis and articular cartilage lesions have limited success and cannot fully restore the damaged cartilage. Research has indicated that stem cells derived from infrapatellar adipose tissue have the ability to maintain their division capacity for up to 100 passages and delay the onset of senescence. These cells have also demonstrated a uniform cell population in a cultured environment. Therefore, the objective of this study is to evaluate the regenerative effects of stem cells derived from infrapatellar adipose tissue on articular cartilage.

Method & material: All animals received proper and compassionate care in accordance with the guidelines set by the National Institutes of Health for animal welfare. The housing conditions and experiments conducted were approved by the ethical committee (IR.MARAGHEHPHC.REC.1397.010) of Maragheh University of Medical Sciences. Stem cells were isolated from infrapatellar fat pads and cultured in T-25 culture flasks. Once the cells reached 80-90% confluency, they were counted using an inverted microscope. The cells were then expanded to passage six, and stem cells from different passages were transplanted into defects present in the articular cartilage. Each sheep knee had two defects, with two of these defects receiving the stem cells. The first group received stem cells in the initial passage, while the second group received stem cells in the final passage. The samples were analyzed using Immunofluorescence staining, Toluidine blue staining, and Real-time RT-PCR.

Result: QRT-PCR analysis demonstrated the expression of coll2, sox9, and aggrecan in all groups. However, the group transplanted in the initial passage exhibited a higher percentage of collagen expression compared to the stem cells in the higher passage. Stem cells in the initial passage displayed fibroblast-like characteristics, with a spindle-shaped morphology and faster confluence attainment. In contrast, stem cells in the higher passage took longer to reach confluence and had wider cells (figure 1a, b). Toluidine blue staining confirmed the formation of cartilage tissue in all groups, and gross photography revealed that defects in group 1 were almost completely filled with cartilage-like tissue, whereas group 2 exhibited a thin layer of cartilage-like tissue formation in the defects (figure 2)

Conclusion: Based on the findings, it can be concluded that the lesions treated with stem cells in the initial passage showed superior repair compared to the lesions treated with stem cells in the higher passage. This indicates that stem cells derived from primary passages exhibit enhanced differentiation potential for the regeneration of articular cartilage and the treatment of Osteoarthritis.

G-1300

Cross-cultural adaptation and psychometric properties testing of the Persian version of the emergency department forensic nursing survey

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Introduction: Forensic nursing focuses on specialized and holistic care for patients affected by violence and traumas whether are alive or deceased. The emergency department nurses identify and assess these patients, provide them with physical, emotional, and social care, as well as preserve and collect documents and chain of evidence. Emergency nurses may be unaware of their expanded role. Clarifying the forensic nursing role behaviors is important to define the scope of practice both within and outside of healthcare settings. Clarification of the forensic nursing role requires valid tools. This study aimed to translate the English version and test the psychometric properties of the Persian version of the emergency department nursing forensic survey among emergency department nurses in Iran.

Method & material: This cross-sectional methodological study was conducted among emergency department nurses in Iran in 2022. A two-part questionnaire consisting of the demographic background and the emergency department nursing forensic survey was used. Through the forward-backward translation method, the scale was translated into Persian. The qualitative face and content validity as well as construct validity were performed. The reliability was assessed through internal consistency and stability.

Result: The results supported a five-factor structure of the emergency department nursing forensic survey which explained 56.49% of the total scale variance. Confirmatory factor analysis showed that the model had a good fit. Internal consistency was evaluated and indicated appropriate values.

Conclusion: The Persian version of the emergency department nursing forensic survey scale had appropriate reliability and validity. It is suitable to use for determining the performed frequency and perceived importance of forensic nursing role behaviors among emergency department nurses.

G-1301

Identification of zoonotic intestinal parasites of laboratory rodents in Hamadan University of Medical Sciences

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Introduction: Rodents such as mice and rats are the most common and widely used animals for laboratory researches. The presence of parasitic infections in laboratory rodents not only affects the results of researches, but also affects the health of researchers and staff. The present study was conducted with the aim of investigating the contamination status of mice and rats of the Laboratory Animal Production and Breeding Center of Hamedan University of Medical Sciences with zoonotic intestinal parasites.

Method & material: During October to November 2022, 60 Wistar rats, 30 BALB/c mice and 30 NMRI mice were randomly collected to investigate parasitic infection. Their digestive tracts were removed and examined microscopically for contamination with worms and parasitic protozoa. After that, isolated parasitic worms including nematodes and cestodes were fixed, stained and mounted. Intestinal protozoa were also identified with the wet smear from the contents of the digestive tract and Giemsa and Nelson's sub-stains were used. Finally, the genus and species of the collected parasites were determined with the valid diagnostic keys.

Result: In general, 75.84% of rodents were infected with at least one worm or protozoa. 34.17% of rodents had helminth and 41.67% of them had protozoan infection. Five species of worms including 3 species of nematodes and 2 species of cestodes were identified. Syphacia obvelata and Syphacia muris had the highest worm infestation among the species (10.83% and 10% respectively), followed by Aspiculuris tetraptera with 7.5%, Hymenolepis nana with 3.33% and Hymenolepis diminuta with 2.5%. In addition, six genera and species of intestinal protozoa were identified, and Giardia muris contamination was the most reported (15%). Followed by, Tritrichomonas muris with 10%, Blastocystis spp. with 6.67%, Entamoeba muris with 5.85%, Cryptosporidium sp. with 3.33% and Eimeria spp. with 0.83% were identified respectively. All results of this study were reported for the first time from laboratory rodents in Hamadan province.

Conclusion: This study showed the high presence of parasitic infection without clinical signs in laboratory rodents. Therefore, it is necessary to closely monitor the health status of the animal house environment and the food consumed by laboratory rodents. Hygienic disinfection in the production and breeding of laboratory animal places, eliminates the adverse effect of these contaminations on the research process and on the other hand, by eliminating the transmissions' risk of zoonotic rodent-borne diseases, the health of researchers and staff will be provided.

G-1302

Investigating the impact of psychological factors on the severity of dysmenorrhea in female students of Bam University of Medical Sciences in 1401

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Introduction: Dysmenorrhea is one of the most common menstrual disorders in the general and individual health of women and girls, which may be accompanied by headache, dizziness, mood swings, diarrhea, flatulence, nausea and vomiting, back pain, and leg pain. Several factors affect dysmenorrhoea or painful menstruation. Among these factors, psychological factors including depression, stress, anxiety and mental problems can be mentioned. According to previous studies, these problems have been observed in medical students more than others and they need special supervision to prevent mental health disorders, however, there is little information about the risk factors for mental health. Therefore, this study was conducted in order to investigate the effect of psychological factors on the severity of dysmenorrhea on the students of Bam University of Medical Sciences in 1401.

Method & material: In this descriptive cross-sectional study, 290 female students of Bam University of Medical Sciences participated in the available method. Information was collected using demographic information questionnaires, menstrual pattern and process, measurement of dysmenorrhea pain (with a visual pain measurement scale) and level of awareness of dysmenorrhea. After collecting the data, it was entered into spss software version 24 and then analyzed using descriptive indices and Pearson's correlation coefficient, and a level of less than 0.05 was considered significant.

Result: This study was conducted by students with an average age of 21.91 and body mass index. 41.6% of students had moderate dysmenorrhea and 38.5% had severe dysmenorrhea. In this study, there was no significant relationship between the severity of dysmenorrhea with the amount of stress, sadness, discomfort, and feeling of distress, fatigue, and enjoyment of work, despite the fact that there was a significant relationship between the severity of dysmenorrhea with disruption of students' work and activity.

Conclusion: Considering the lack of relationship between dysmenorrhea and mental and psychological factors and the relationship between its severity and the level of activity of people, therefore, it is recommended that despite the prevalence of dysmenorrhea and its importance and disturbance in the activity and daily life of people, this study in different population groups and society A larger one is checked.

G-1303

Developing an analytical method for quantification of trientine based on modified silver nanoparticles

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Introduction: Silver nanoparticles have a positive surface charge that could be changed the surface plasmon by adding materials with different properties. They have UV absorbing of around 400 nm which reduce in presence of different concentrations of analyte. Modified silver nanoparticles by anionic surfactants can be used for the measurement of amines. Trientine that is a copper chelator and used in Wilson disease, is aliphatic amine which does not have UV absorbing groups. In this study, the modified silver nanoparticles by sodium lauryl sulfate (AgNPs-SLS) have been used to develop an analytical method for quantification of Trientine.

Method & material: Silver nanoparticles were produced using a solution of silver nitrate, sodium lauryl sulfate (SLS) and sodium borohydride as the reducing agent. Different concentrations of Trientine were added into a certain concentration of silver nanoparticle and absorbance of each sample was measured at 397 nm under the optimal conditions which include pH, salt and nanoparticle concentrations and time. It was optimized by a design of experiments using response surface methodology. Then, the calibration curve was obtained based on concentrations of Trientine solution versus decrease in the absorbance of AgNPs. The accuracy, validity and repeatability of the developed method were examined. Selectivity of the developed method was performed in plasma and in presence of common cations i.e. copper, zinc and ferrous.

Result: Under optimum conditions (pH=2, salt concentration= 5×10-4 M, AgNPs volume= 1.5 ml, time= 15 minutes), linear range of this method was between 10-40 ng/mL with correlation coefficient (R2) of 0.996 with limit of detection and quantification of 3 ng/mL and 10 ng/mL, respectively. The method had appropriate selectivity after dilution up to the concentration of drug in plasma and in presence of common cations.

Conclusion: The charge at the surface of silver nanoparticles changed to the negative by adding SLS as an anionic surfactant. These modified nanoparticles can be used in the measurement of drugs with amines functional groups like Trientine. In this study, the modified silver nanoparticles was developed to measure Trientine in aqueous and plasma samples. This method is suitable and low costing and does not require high equipment.

G-1304

The Hidden Link Between ABO and Rh Blood Group System and COVID-19 Severity

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Introduction: Background: The ABO and Rh blood group systems are two of the non-modifiable risk factors that may influence the susceptibility, severity and outcomes of COVID-19 infection. However, the evidence on this association is inconsistent and varies across different populations.Objective: To conduct a systematic review of the literature on the relationship between ABO and Rh blood group systems and COVID-19 transmission, course and outcome.

Method & material: A systematic online search for published literature, we searched PubMed, Scopus, Web of Science and Google Scholar databases, including unpublished articles, with the MESH (medical subject heading) terms "ABO blood groups" and "COVID-19". In order to expand my search scale, we alsoconducted a full-text search with the relevant terms ("SARS-CoV-2 infection", "2019-nCoV infection", "novel coronavirus infection" and "ABO polymorphisms). The searching time period was until June 2023 and we limited the search language to English, with no restrictions on country or publication state.

Result: we included 35 studies with a total of 123,456 participants from 18 countries. The analysis showed that blood group O was associated with a lower risk of COVID-19 infection and severe disease compared to other blood groups, while blood group A was associated with a higher risk of infection and severe disease. Blood group B was also associated with a higher risk of infection, but not with severe disease or mortality. Blood group AB was not associated with any COVID-19 outcome. Rh positive individuals had a higher risk of infection and severe disease than Rh negative individuals, but no difference in mortality was observed.

Conclusion: This systematic review suggests that ABO and Rh blood group systems may play a role in the susceptibility and severity of COVID-19 infection. Blood group O and Rh negative individuals may have a protective effect, while blood group A and Rh positive individuals may have an increased risk of COVID-19 infection and complications.

G-1305

The effect of self-care education based on team members teaching design on the quality of mental and physical life in patients with multiple sclerosis: a randomized clinical trial study

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Introduction: Multiple sclerosis and its changes affect the quality of life of patients and since the majority of patients are of working age, it has harmful and destructive effects on various aspects of quality of life. People with MS report lower quality of life compared to other people with chronic illness. Therefore, this study was conducted to investigate the effect of self-care education based on team members teaching design on the quality of life in patients with MS.

Method & material: 40 patients with multiple sclerosis (MS) from Jahrom MS community were selected by simple random sampling and then were divided into intervention and control groups by random allocation method. In the intervention group, 6 training sessions were held twice a week for 60 minutes. Data were collected using Multiple sclerosis quality of life Scale before, immediately and one month after intervention in both groups. Data were analyzed by SPSS version 21 and descriptive statistics, chi-square test, repeated measurements and ANOVA at the significant level of 0.05.

Result: Patients in the intervention and control groups were matched for demographic variables such as age, gender, marital status, education, occupation, and number of relapses during the last year and so on. The mean score of self-efficacy before the intervention, immediately after and one month after the intervention showed that the mean scores of self-efficacy were significantly different in the intervention group ($p = 0.001$), whereas these changes were not significant in the control group (0.261). Self-efficacy scores were also significantly different between the control and intervention groups at baseline and one month after intervention ($p = 0.001$).

Conclusion: Based on the findings, the team training approach provides a simple and safe learning for patients and leads to improving the quality of physical and mental life in MS patients. Therefore, it is suggested to use this educational-supportive approach as a valuable tool to improve, treat and control patients' physical and psychological complications, as well as increase the quality of life of patients.

G-1306

The effect of pH and beta-cyclodextrin on solubility and solution stability of piroxicam cocrystals

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Introduction: Most drugs have low solubility in aqueous media, which directly influences drug efficacy and bioavailability. Many approaches have been developed to improve drug solubility. Recently, crystal engineering as a novel method was applied to adjust drug physicochemical properties such as solubility. Cocrystals are crystalline materials composed of two or more different molecules (in a certain stoichiometric ratio), typically active pharmaceutical ingredient (API) and cocrystal formers (coformers) which constitute non-covalent bonds that form a unique crystalline structure. Recently, some cocrystal forms of API are commercially available in the market. The aim of this study is the preparation and characterization of piroxicam cocrystals and evaluation of aqueous solubility at different pHs. In addition, the solubility of piroxicam and cocrystals will be evaluated in presence of beta-cyclodextrin as a complexing agent.

Method & material: Cocrystals of piroxicam with different coformers (benzoic acid and saccharin) were prepared by the slurry method. A certain molar ratio (1:1) of piroxicam and coformer were added to solvents, then the obtained suspension was left at room temperature. The prepared cocrystals were characterized by Powder X-Ray Diffraction (PXRD) analysis and Differential Scanning Calorimetry (DSC). The thermodynamic solubility of piroxicam, coformers and cocrystals were determined in different media, including phosphate buffer solution at pH range 2-7 and β-cyclodextrin at different concentrations. Then, their effects on the solubility and stability of cocrystals were investigated.

Result: PXRD and DSC confirmed cocrystal formation. Additive concentrations of β-cyclodextrin (0-0.02 M) showed enhancement in solubility and solution stability of both piroxicam-benzoic acid and piroxicam-saccharin cocrystals. In addition, they exhibited maximum solubility at pH value of 7, however, increasing pH indicated no improvement in solution stability of studied cocrystals.

Conclusion: β-Cyclodextrin has the ability to improve the solubility and solution stability of both cocrystals. In addition, pH of solution can change thermodynamic solubility and stability of piroxicam cocrystals.

G-1307

The Polypodium vulgare L hydroalcoholic extract effect on epileptic seizures induced by pentylenetetrazole and comparing it with the effect of sodium valproate in animal model

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Introduction: More than 1% of the world's population suffers from epilepsy. Sodium valproate is one of the drugs widely used to treat epileptic seizures. In the old texts, it is stated that Polypodium Vulgare plant has an effect on the nervous system activity. This study was conducted to investigate the anticonvulsant effect of the Polypodium vulgare L hydroalcoholic extract of on the chemical kindling model of epilepsy.

Method & material: The present study was conducted on 56 male rats, which were randomly selected and divided into 4 groups. No intervention was performed on the control group. The reference group received pentylenetetrazole (PTZ), the test group 1 and 2 received hydroalcoholic extract of Polypodium vulgare L with Doses of 300 and 500 mg/kg of body weight and test groups 3 and 4 received sodium valproate with doses of 150 and 300 mg/kg through gavage injection, 30 minutes before receiving pentylenetetrazole, which was diluted with distilled water to a concentration of 1%. Chemical kindling was performed with 7 intraperitoneal injections of PTZ with doses of 25, 30, 35, 40, 45, 50 mg/kg body weight, once every 48 hours. Data analysis was done using SPSS version 20 software and P value 0.05 was considered significant.

Result: The hydroalcoholic extract of Polypodium vulgare L has a reducing effect on convulsions caused by pentylenetetrazol injection. This plant with a dose of 300 mg/kg of body weight inhibited the stages of seizures more effectively than the other 3 test groups and increased the time required for the onset of seizures.

Conclusion: A dose of 300 mg of the hydroalcoholic extract of Polypodium vulgare L has been more effective than its 500 mg dose, as well as both 300 and 150 mg doses of sodium valproate in the treatment of epilepsy induced by pentylenetetrazol with reducing the severity of convulsive attacks and delaying them. In conclusion this study indicates that hydroalcoholic extract of Polypodium vulgare L can be effective in the treatment of epilepsy.

G-1308

Investigating the lipotropic effect of gallic acid on the concentration of triglycerides and total cholesterol in the liver tissue and feces of normal male rats fed with a high-fat diet.

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Introduction: In recent years, obesity has been raised as a global epidemic problem, and with the rapid increase in the obese population worldwide, the incidence of metabolic syndromes has increased every year. Obesity is a metabolic disorder that results from an imbalance between energy intake and energy consumption and is characterized by increased fat mass and triglyceride accumulation in the liver, skeletal muscles, and pancreas. The aim of this study was to investigate the lipotropic effect of gallic acid on the concentration of triglycerides and total cholesterol in the liver and feces of normal male rats fed a high-fat diet.

Method & material: In this experimental research, male Wistar rats with a weight range of 180-200 grams and 7-8 weeks of age were used under standard conditions. 48 rats in 6 groups of 8 including control, experimental 1 (received gallic acid 50 mg), experimental 2 (received gallic acid 100 mg), experimental 3 (high-fat control = feeding with high-fat food for 2 months), experimental 4 (feeding with high-fat food and receiving gallic acid 50 mg), experimental 5 (feeding with high-fat food and receiving gallic acid 100 mg) were divided. After 28 days of receiving the extract, feces and liver tissue of the animals were separated. One gram of feces and liver tissue was added to 18 ml of hexane-ethanol and after homogenization, the resulting suspension was filtered. The resulting solution was mixed with 12 ml of sodium sulfate for at least 1 minute to remove non-fatty substances. Triglyceride and total fecal cholesterol were

Result: The average concentration of triglycerides and total cholesterol in the liver tissue and feces in experimental groups 1 and 2 compared to the healthy control group and the average concentration of triglycerides and total cholesterol in the liver tissue and feces in experimental groups 4 and 5 compared to the high-fat control group (experimental 3) decreased It showed significance at the statistical level of 5%. The highest effect was related to the concentration of 100 mg of gallic acid

Conclusion: Gallic acid, as a strong antioxidant and by inducing the effect of reducing body fat mass, caused a significant decrease in the average concentration of triglycerides and total cholesterol in the liver tissue and feces of adult male rats in a dose-dependent manner.

G-1309

Clinical course and injuries caused by episiotomy wound in primiparous women referred to hospitals in Malayer city in 2021: a prospective cohort study

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Introduction: Episiotomy is a common midwifery procedure to facilitate childbirth. This study aimed to investigate the clinical course, and injuries caused by episiotomy wounds in primiparous women referred to the hospitals of Malayer City in 2021.

Method & material: This research was a prospective cohort study that was conducted in Mehr and Gharazi hospitals in Malayer City. To this end, 352 primiparous women with mediolateral episiotomy were included in the study after completing a written consent form. The inclusion criteria were being singletons, not having dystocia, and not having macrosomia. Checklists for assessment of episiotomy wound status (Rida), visual analog, and questionnaire of demographic and obstetric characteristics were completed for all samples on days 1 and 10 after delivery. Data were analyzed using the t-test, Wilcoxon, Pearson Correlation Coefficient,and Chi-square. Data analysis was done using SPSS software version 21 at a significance level of less than 0.05(p 0.05).

Result: The average age of the participants was 25.48 ± 4.42 years. The average length of the episiotomy cut (cm) was 2.71 ± 0.656, and the average number of stitches was 5.61 ± 1.361. In general, the changes in redness, bruising, discharge, and distance between the two edges of the wound on day 10increased significantly compared to day 1. Perineal edema decreased on day 10 compared to day 1, but this change was not statistically significant (P=0.943). Changes in the average score of the episiotomy wound evaluation scale on day 10 compared to day 1 increased significantly (P0.001), and changes in the average pain level on day 10 had a significant decrease compared to day 1 (P0.001).

Conclusion: Episiotomy is a traumatic operation in midwifery, and its short-term side effects, i.e.,edema, bruising, perineal pain, discharge, and separation of the two edges of the wound, require time to heal. For this reason, it is necessary to prevent more damage to women's health by teaching midwives about physiological birth and the revival of this birthing method.

G-1310

Alamandine Ameliorates Doxorubicin Induced Hepatotoxicity in Rats

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Introduction: Doxorubicin (DXR)-related hepatotoxicity is mainly related to oxidative stress reactions. Administration of DRX greater than 450 mg/square meters can lead to toxic side effects. alamandine is an endogenous peptide that plays an important protective role in the cardiovascular system and is one of the new members of the renin-angiotensin system. alamandine has been shown to decrease the nuclear translocation of nuclear factor κB (NF-κB) and reduce the levels of tumor necrosis factor alpha (TNF-α), interleukin 1β (IL-1β), and interleukin 6 (IL-6), effectively suppressing inflammation in cardiomyopathy induced by DXR. Given the histopathological findings of mononuclear cell infiltration and inflammation in liver tissue following DRX administration, and the anti-inflammatory properties of alamandine, it is plausible that alamandine could play a significant role in reducing DXR-induced inflammation.Thus, in this study, we aimed to demonstrate the antioxidant and anti-inflammatory effects of alamandine on DRX-induced hepatotoxicity.

Method & material: Rats were administered DXR (3.750 mg/kg) intraperitoneally on days 14, 21, 28, and 35 to attain a total cumulative dose of 15 mg/kg. They were also given alamandine via mini-osmotic pumps for 42 days. Liver toxicity was evaluated histologically and biochemically. At the conclusion of the 42-day period, the levels of superoxide dismutase (SOD), catalase (CAT), malondialdehyde (MDA), and inflammatory markers were measured in the livers of all animals. Additionally, liver enzymes indices (ALT, ALP, and AST) were measured in the serum of all animals.

Result: The findings indicate that DXR was able to induce hepatotoxicity in the rats, as evidenced by increased levels of ALT, AST, ALP, MDA, and inflammatory factors, as well as decreased SOD and CAT activity, which are consistent with hydropic degeneration and necrosis of hepatocytes. However, treatment with alamandine decreased MDA and ALT, ALP, and AST, as well as inflammatory factors, while increasing SOD and CAT.

Conclusion: Our findings suggest that alamandine, with its high antioxidant activity, can protect against DXR-induced hepatotoxicity in rats. Furthermore, alamandine has a potential anti-inflammatory effect. Therefore, it may be considered as a protective agent in DXR-induced hepatotoxicity and may help in the proper use of antimetabolites in cancer chemotherapy.

G-1311

Sexual performance and satisfaction in women undergoing in vitro fertilization treatment referred to Fatemieh Infertility Center in Hamadan city in 2022: A cross-sectional study

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Introduction: Infertility as a crisis and bitter life experience leads to mental stress, increasing marital problems, and decreasing sexual satisfaction. This research investigates sexual performance and satisfaction in women undergoing in vitro fertilization (IVF) treatment at Fatemieh Infertility Center in Hamadan City in 2022.

Method & material: This research was a cross-sectional study conducted from December to March 2022 at Fatemieh Infertility Center in Hamedan. For this purpose, 170 infertile women experiencing the first IVF cycle were sampled (after obtaining informed consent) in the case of confirmed primary infertility. Couples entered the study after being examined by a doctor. The inclusion criteria werethe absence of any sexual dysfunction, the absence of injuries, and each couple's physical and mental diseases. In the case of incomplete completion of the questionnaire and adoption, they were excluded from the study. Demographic and midwifery questionnaires, Linda Berg sexual satisfaction, and female sexual function index (FSFI) were completed for all samples. The relationship between the sexual satisfaction score at the levels of demographic variables was investigated using the t-test and one-way analysis of variance. Data analysis was performed using SPSS version 21 software.

Result: The average age of the participants was 33.88±4.94 years. In 54.12% of the participants, the marriage period was between 5-10 years. Also, in more than 60%, the period of infertility was more than 3 years. The cause of infertility in 111 people (65.29%) was female factors. Sexual satisfaction was weak in 63.53% of patients. There was a significant relationship between the duration of marriage, the period of infertility, the cause of infertility, and the frequency of sexual intercourse with sexual performance (P0.05). All patients with poor sexual performance had poor sexual satisfaction, and 60.19% of patients with good sexual performance had good sexual satisfaction (P0.001). The highest percentage of scores obtained concerning sexual performance was related to pain (51.6%), and the lowest was related to desire (38%).

Conclusion: Sexual dysfunction can affect anyone any time, especially in women who struggle with infertility. Infertility can be considered a risk factor for sexual performance.

G-1312

Microbiome biomarkers of colorectal cancer: a systematic review

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Introduction: Colorectal cancer is one of the most common types of cancer worldwide and occurs mostly in individuals over 50 years old. This type of cancer is associated with changes in the behavior and activity of the gut microbiome. Studies have shown that some bacteria and products of the microbiome can be used as microbiome biomarkers in the diagnosis and prevention of CRC. In this article, a systematic review method will be used to examine and evaluate studies conducted on microbiome biomarkers in colorectal cancer. By reviewing these studies, effective microbiome biomarkers for the diagnosis, prediction, and prevention of CRC will be identified and results will be reported.

Method & material: This study is a systematic review, and its articles were obtained by using the keywords microbiome, cancer, colorectal cancer, and biomarker in the PubMed, Scopus, Web of Science, and Google Scholar databases. In this stage, the titles and abstracts of the articles were reviewed to remove irrelevant ones. Of the 756 articles found, 103 articles were fully reviewed. 10 observational studies that included cohort and case-control studies were selected. The evaluation of the studies was also performed using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist.

Result: More than half of the ten microbiome studies were using fecal samples and some intestinal tissue. Two studies focused on the oral microbiome. 16s RNA sequencing and qPCR were used to examine differences in the microbiome between CRC and control groups. Fusobacterium, Bacteroides fragilis, Prevotella, P.micRa, P.stomatis, and Streptococcus have a strong correlation with colorectal cancer. Lactobacillus spp can help prevent this type of cancer. These bacteria can be used as candidate biomarkers for CRC, especially Fusobacterium. In addition, one study showed that Lactobacillus spp. can be effective in preventing colorectal cancer.

Conclusion: Studies have shown that the gut microbiome plays an important role in the evolution and progression of this type of cancer, and microbiome biomarkers can be used as inherent molecular indicators in the diagnosis, prediction, and prevention of this type of cancer. Some microbiome biomarkers include bacteria, metabolic products, and functional microbiomes. The results of studies have shown that some bacteria such as Fusobacterium nucleatum and Enterococcus faecalis, and metabolic products such as aspartate and taurocholate, can be used as effective microbiome biomarkers in the diagnosis and prevention of CRC. Therefore, identifying microbiome biomarkers can be used as a non-invasive and effective method in the diagnosis and prevention of colorectal cancer.

G-1313

Factors affecting the incidence of burnout and its consequences among operating room staff

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Introduction: Occupational burnout is a psychological condition that has arisen in response to long-term exposure to chronic interpersonal stress and is a very important threat to healthcare workers, which is increasingly growing today. Health workers more exposed to factors that cause burnout due to high stress in response to quickly meeting the needs of patients and their relatives. This study conducted with the aim of investigating the factors affecting the incidence of burnout among operating room staff and its consequences.

Method & material: Investigation were comprehensively done in databases such as Pubmed, Web of Science, Scopus, and Google Scholar on the subjects of Occupational burnout , operating room , nursing and factors and challenges . Out of 46 articles, 28 studies evaluated.

Result: Occupational burnout by causing emotional fatigue, depersonalization and a sense of reduced personal achievements can have many physical and mental consequences for operating room staff and problems in providing quality of care for patients. Since nurses spend a large part of their time in the work environment, the inappropriate conditions of the work environment and insufficient support for employees have led to occupational dissatisfaction, which can contribute to burnout. High levels of occupational burnout in nurses can lead to several negative consequences such as reducing the quality of nursing care, occupational dissatisfaction, intention to leave the job, frequent medical errors and increased absenteeism, which alarmingly endangers patient safety. Occupational burnout affects the physiological stability of people and exposes them to cardiovascular diseases, psychiatric and digestive disorders. In fact, psychosomatic problems, headache, insomnia, depression, hypertention, tension, anger, narrow-mindedness, cognitive impairment, and reduced attention are also the consequences of occupational burnout.

Conclusion: Considering the increasing level of occupational burnout, it is necessary for managers and policy makers to create the necessary facilities and hold continuous training courses and psychological counseling to increase problem solving skills in clinical environments and reduce occupational burnout.

G-1314

Comparison of the intubation success rate and complications in difficult airway management patterns

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Introduction: Difficult airway management is one of the most important challenges in the emergency department and intensive care unit. According to studies, 80.4% of intubations in the emergency department and 59.6% of intubations in the intensive care unit are difficult, and it is also known that the incidence of complications is directly related to the number of intubation attempts. Therefore, this study compared the success rates and complications of awake intubation and anesthetic intubation in patients with difficult airways.

Method & material: This study is a systematic review in online databases, including Medline, Web of Science, Scopus, Google Scholar and the National Persian Database Magiran, SID was carried out through May 2023, using the following MeSH keywords difficult tracheal intubation, complications, success rate, airway management awake fiberoptic intubation . the authors independently screened the studies on the basis of titles and abstracts, and the full texts were reviewed, and finally 13 articles were included. The inclusion criteria included articles related to endotracheal intubation awake and under anesthesia in patients with difficult airways, articles with abstracts and full text in English or Farsi, and articles published in peer-reviewed journals. The exclusion criteria for articles included journal notes such as short articles of the letter to editor, commentaries, conference abstracts, and dissertations.

Result: The success rate of awake intubation was 86.7%, and the success rate under anesthesia was 82.1%. In addition, the time required for awake intubation and intubation under anesthesia was calculated as 24 and 16 minutes, respectively. The rate of complications in awake intubation was 12.4% (mucosal injury, tracheal tube cuff leakage, accidental extubation) and 15% in intubation under anesthesia (apnea, severe hypotension, severe hypoxia, pharyngeal injury).

Conclusion: In patients with difficult airways, awake intubation has a higher success rate and fewer complications than intubation under anesthesia.

G-1315

Investigating the Effect of Covid-19 on Male Infertility: A Review Article

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Introduction: Corona disease is an acute respiratory syndrome that spread from December 2019 and became a pandemic. The main receptor of Corona virus is angiotensin-converting enzyme 2(ACE2) and this virus enters the human body using this receptor and serine proteases receptor 2(TRPMSS2) and causes various complications, among which men are affected due to the higher expression of ACE2 and TRPMSS2, are more prone to these complications. Also, one of the organs where the ACE2 receptor is abundantly found is the testicles, especially the spermatogonia, Leydig and Sertoli cells, and the entry of the virus may cause problems. In this review article, we investigated the effect of Corona disease on infertility in men.

Method & material: This systematic review article was written in 2023 by searching in Google Scholar, PubMed and SID websites and using filters to select articles published between 2021-2023 and using the keywords hormones, male infertility, Covid-19, SARS - COV-2 and their Persian equivalents. Of the 18,700 available articles, 16 were included in the final analysis.

Result: Related studies showed that the infection caused by Corona disease probably affects the physiological function of male glands, and this effect causes negative effects on spermatogenesis and epididymis by disrupting the Hypothalamic-Pituitary-Gonadal(HPG) axis. Also, Corona disease can cause direct and indirect effects on male fertility by increasing oxidative stress. On the other hand, the immune response and fever caused by Corona disease increase the possibility of damage to the testicles and fertility disorders.

Conclusion: Based on the studies, a change in the level of male sex hormones was observed. Among these abnormal values, we can mention the increase in the levels of Luteinizing hormone(LH) and Follicle-stimulating hormone(FSH) and the change in the ratio of these two hormones. Also, due to the increase of pro-inflammatory cytokines such as interferon gamma(IFN-γ), interleukin 2(IL-2), interleukin 6(IL-6) and tumor necrosis factor alpha(TNF-α), a decrease in testosterone levels is observed in these people. Therefore, due to the importance of this issue and the effects it has on men, it is important to examine the sex glands in different ways, including measuring the levels of relevant hormones during the Corona virus infection and after recovery and examining the semen.

G-1316

Comparison of follicular fluids Glycosaminoglycan and hydroxyproline concentration in polycystic ovary syndrome with healthy women

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Introduction: Polycystic Ovary Syndrome (PCOS) is one of the most prevalent endcorinopathies among women of child bearing age and the leading cause of anovulatory infertility. Hyperinsulinemia, obesity and higher levels of cholesterol manifested following insulin resistance are involved in pathogenesis of PCOS. Follicle growth in ovaries is a result of tissue remodeling, which itself occurs following the Extra Cellular Matrix (ECM) alterations. ECM is made up of various growth factors as well as macro and micronutrients like proteoglycans, glycoproteins and collagens. ECM remodeling is a process of fractionating the existing, and synthesis and accumulation of the new ECM proteins. One of the prominent proteolytic enzymes are matrix metalloproteinases (MMPs). Studies have proved an increased circulating concentrations of MMPs in PCOS women. In this study, we aimed to evaluate level of glycoasaminoglycans and hydroxyproline in the follicular fluid of women with polycystic syndrome.

Method & material: This cross sectional study was performed on 31 women with PCOS and 31 women with normal ovulatory function who were under observe for male infertility factor in their husbands and received IVF. All participants were within age range of 20 to 40 years old. The control group were women with regular menstrual cycles with no evidence of hirsutism and acne. PCOS and controls were treated with a standard long protocol with a GnRH agonist in the mid-luteal phase of the preceding menstrual cycle. Ovarian stimulation was initiated with recombinant FSH,Cinnal-F. For determination of glycosaminoglycan level, the specimens were dissolved in papain solution in separate microtubes. The supernatants and the GAG Reagent was the added to every well. Finally, using a spectrophotometer, plate's absorbance was measured in 510-560 nm. Similiarly, to determine the level of hydroxyproline, similar steps were performed and plate's absorbance was measured in 540-560 nm using a spectrophotometer.

Result: No considerable difference was witnessed between the case and control group in terms of age and body mass index(BMI). The number of retrieved oocytes in patients with PCOS was significantly higher than the control group(p0.001). Our findings revealed that women with PCOS had significantly higher follicular fluid GAG level as compared to healthy women (P0.05). The results indicated a significantly higher level of hydroxyproline in women with PCOS(p0.0.5) when compared to the healthy women .

Conclusion: In conclusion, our study indicated markedly elevated levels of glycosaminoglycan and hydroxyproline in the follicular fluid of PCOS patients.A bigger number of oocytes were detected in women with PCOS.

G-1317

Effectiveness of Low-Fructose Diet in Improving Anthropometric and Metabolic Factors: A Systematic Review and Meta-Analysis

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Introduction: In recent decades, there has been a significant increase in the consumption of fructose-containing sugars, raising concerns about their potential association with metabolic disorders and obesity. To investigate the impact of a low-fructose diet (LFD) on anthropometric and metabolic variables, we conducted a comprehensive systematic review and meta-analysis.

Method & material: We performed a systematic review and meta-analysis of randomized controlled trials (RCTs). Relevant research was identified through a thorough search of electronic databases, including PubMed, Scopus, and Web of Science, up until January 2023. To identify other relevant literature that was not available through the databases or references of published articles, we explored alternative sources such as ProQuest for dissertations and theses, and conference papers. Additionally, we performed a manual search on Google Scholar and carefully reviewed the reference lists of pertinent studies and review articles.

Result: Our analysis incorporated ten trials with intervention durations ranging from 4 to 24 weeks, involving a total of 750 participants. The findings revealed that LFD had no significant effect on weight; however, it exhibited a significant impact on body mass index (BMI) (SMD= −0. 2; 95% CI: −0.37, -0.04, P = 0.017) and waist circumference (WC) (SMD= −0.48; 95% CI: −0.67, -0.29, P 0.0001). Furthermore, LFD demonstrated a substantial effect on systolic blood pressure (SBP) (SMD= −0.24; 95% CI: −0.39, -0.09, P =0.002), as well as significant effects on fasting blood glucose (FBG) (SMD= −0.23; 95% CI: −0.40, -0.07, P =0.005), hemoglobin A1c (HbA1c) (SMD= −0.62; 95% CI: −0.93, -0.31, P 0.0001) and , and triglyceride levels (SMD = -0.17; 95% CI: -0.33, -0.02, P = 0.028). . However, no significant effects were observed on diastolic blood pressure (DBP), insulin, and homeostatic model assessment of insulin resistance (HOMA-IR).

Conclusion: Our meta-analysis suggests that low-fructose diets effectively reduce BMI, WC, SBP, FBG, HbA1c, and TG, thereby offering a potential therapeutic approach to regulate blood glucose and blood pressure in individuals over the age of 50. Notably, an LFD maintained for ≥8 weeks in individuals ≥50 years old, as compared to a standard or regular diet, exhibits greater improvements in weight, BMI, WC, SBP, DBP, and FBG. People aged ≥50 benefit from LFD in terms of enhanced insulin, HOMA-IR, total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), and TG levels.

G-1318

Enhancing Quality of Life on a Gluten-Free Journey: A Cross-Sectional Study in Persian Patients with Celiac Disease

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Introduction: Celiac disease (CD) is an autoimmune condition that is activated in genetically vulnerable individuals when they consume foods containing gluten. The impact of celiac disease on the quality of life (QoL) of patients has been widely recognized, but there is limited research specifically focusing on Persian patients in Iran. The aim of this cross-sectional study was to evaluate how CD affects the QoL of individuals who adhere to a gluten-free diet (GFD). Additionally, the study investigated the impact of demographic and clinical factors, including gender, age at diagnosis, and time of diagnosis, on QoL.

Method & material: A total of 86 adult patients aged 18 years or older, who had a confirmed diagnosis of CD and had been following a GFD for at least 6 months, were included in the study. Participants completed the celiac disease quality of life (CD-QoL) questionnaire, which comprised 20 questions categorized into four clinically significant subscales. Data analysis involved descriptive statistics, Fisher's exact test, Mann-Whitney U test, and multivariate logistic regression analysis. The statistical analysis was conducted using SPSS-16 software.

Result: The average age of the participants was 41.87 years, and 67.4% of them were females. No significant associations were found between demographic variables (such as sex, age, age at diagnosis, duration of CD, ethnicity, and marital status) and total QoL scores or any of the four subscales. However, individuals with non-academic educational backgrounds had higher total QoL scores compared to those with academic qualifications. The subscale related to health concerns showed significantly lower scores in participants aged 40 or younger compared to older individuals. The overall QoL score was borderline (58.34), indicating a moderate impact of CD on QoL.

Conclusion: The findings of this study indicate that CD can affect the QoL of individuals who adhere to a GFD, and factors such as age and educational level may influence specific QoL subscales. These results emphasize the importance of targeted interventions and support, particularly for young individuals with CD, to enhance adherence to GFD and improve overall QoL.

G-1319

Preparation and Evaluation of Dry Powder Inhalation of Curcumin–Succinic Acid Eutectic Mixtures by Electrospraying Method

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Introduction: Curcumin is a natural polyphenol with antioxidant, anti-inflammatory, anti-cancer, anti-Alzheimer and antibacterial properties. Curcumin has beneficial effects on pulmonary system diseases such as respiratory tract inflammatory disease, emphysema and even lung cancer. Local delivery of curcumin to pulmonary tract can provide higher concentrations and address its first pass metabolism and low oral bioavailability. Curcumin has very low water solubility and dissolution rate. Eutectic mixtures are a combination of two or more components in the crystal phase with higher stability, solubility rate and lower melting temperature compared to their ingredients. Previous studies have indicated that formation of eutectic mixtures between curcumin and succinic acid (CUR-SUC-EM) can significantly improve dissolution properties of curcumin. The purpose of this work is to use electrospraying (ES) as a single step process for simultaneous preparation and particle engineering of CUR-SUC-EM for pulmonary delivery.

Method & material: To prepare DPI of CUR-SUC-EM by ES, curcumin and coformers are dissolved in various organic solvents such as methanol, acetone, and dichloromethane. Then the mentioned solution is placed in the electrospray device. After storing for 24 hours, the final powder form of eutectic mixture is collected from the device's collector and stored in a desiccator. In a different way by co-grinding method, Curcumin and coformer mixtures were powdered in a mortar and pestle with a few drops of ethanol at ambient temperature for about 30 min. The prepared CUR-SUC-EM was evaluated for morphology and particle size, inhalation-crystalline-thermal properties and the dissolution characteristics with the optical microscope, Next Generation impactor (NGI), X-ray diffraction method, differential scanning calorimetry method (DSC), and dissolution test device, respectively. In addition, intermolecular interactions and hydrogen bonding analyzed by Fourier-transform infrared spectroscopy (FTIR).

Result: The results showed that it is possible to prepare the EM by ES. The DSC, PXRD, and FTIR profiles of electrosprayed products were similar to coground EM. Optical microscopy and SEM experiments showed that ES resulted in the formation of micronized particle. In NGI experiments, electrosprayed EM showed higher fine particle fractions than raw curcumin and coground EM. Furthermore, dissolution rate of electrosprayed was higher than samples.

Conclusion: The successful preparation of CUR-SUC-EM by ES method showed that curcumin can be used as a natural compound in respiratory tract diseases in dry powder form. Investigations of different properties of CUR-SUC-EM indicated acceptable dissolution and stability, which opens new horizons for future clinical trial studies.

G-1320

The Association between maternal height and Caesarean section risk in mothers of first birth in Iran

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Introduction: Caesarean section(CS) is an operation used to reduce maternal and fetal complications of Childbirth. While it can be lifesaving, it is not without risks for both mother and baby and should only be performed when indicated. As we are observing increase in CS prevalence worldwide, we studied relationship between CS risk and maternal height in mothers of first birth in QAZVIN, IRAN.

Method & material: data were obtained from 2398 first-time mothers who gave birth in KOWSAR hospital from march 22nd in year 2019 to March 20th year 2022 (3 years) We collected data on prevalence ratio of the relation between maternal height and CS based on Poisson regression model. We took into consideration covariates and sampling. Additionally, we examined variables including mother Age(year), mother Height (cm), mother Weight (kg), BMI before and after pregnancy (kg/m2), mother's habitation(city-town-rural), Disease group, Disease Hx, Child birth status. Neonate variables: Gender, Height(cm), Weight (gr), BMI(kg/m2). The p0.05 was considered significant. Tests to analyze data are Chi-square, Fisher's exact, Independent t-test and ANOVA test.

Result: we found a significant statistical association between CS risk and the following variables: mother's Height (cm)(p0.001)taller mothers have less risk, Mother's Age(p0.001)Women who are older have a higher risk, Location(p0.001)urban area has the highest risk, also Diabetes(p0.001)and gestational Diabetes (p0.014), Preeclampsia(p0.001) and Eclampsia(p0.001) have a strong analytical result for leading to CS, Disease Hx(p0.001)past medical history taking of pregnant women plays crucial role in modifying CS risk, Disease group(p0.001)endocrine has the highest prevalence followed by heart and neurological disorders, Child birth status(p0.001)the most common status is "Term"(above 37 weeks of gestation)in both vaginal and CS birth, neonate Gender(p=0.008)female gender increases risk, neonate Height (cm) (p0.001), neonate Weight (gr) (p0.001), neonate BMI(p0.001).Our study didn't show any significant association in mothers' Weight (kg)(p=0.198), BMI before and after pregnancy (kg/m2), Blood pressure(p=0.379), gestational Blood pressure(p=0.607)with CS risk

Conclusion: maternal height has an absolute effect on rate of CS, decreasing risk of CS with increasing maternal height. The older mothers have higher CS rate and Endocrine is the highest prevalent group disease associated with CS. So, Healthcare providers should carefully consider these factors in their decision-making process regarding mode of delivery, with the goal of reducing unnecessary CS and improving maternal and fetal outcomes

G-1321

Legume and nut consumption in relation to migraine with aura: a case–control study

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Introduction: The current study was conducted to compare the dietary intake of legumes and nuts between migraine patients and non-migraine controls, assessing the associations of consumption with migraine headaches.

Method & material: In this population-based case-control study, we enrolled 140 patients with migraine and 230 age-matched controls. Dietary intake was assessed using a validated 168-item semi-quantitative food frequency questionnaire. Characteristics of migraine headaches and headache daily result (HDR) were also assessed using standard protocols.

Result: We found a significant lower consumption of legumes, but not nuts, in migraine patients than controls. After controlling for potential confounders, migraine patients in the highest tertile of legume consumption had 2.9 times more odds of having high severity (OR: 2.90, 95% CI: 1.03-8.16) and 65% lower odds for having a high frequency of migraine headaches (OR: 0.35; 95% CI: 0.13-0.97). Moreover, lentil consumption was inversely associated with high frequency (OR: 0.16; 95% CI: 0.04-0.68) of migraine headaches. With regards to nuts, higher intake was associated with 63% and 69% lower odds of high duration of headache (OR: 0.37, 95% CI: 0.14-0.99) and HDR (OR: 0.31, 95% CI: 0.11-0.89), respectively. Furthermore, walnut consumption was inversely associated with high duration of migraine headaches (OR: 0.18; 95% CI: 0.06-0.52), and high HDR score (OR: 0.16; 95% CI: 0.05-0.52). However, we found a significant positive association between walnut intake and frequency of headaches.

Conclusion: We found that legume consumption was associated with higher severity and lower frequency of migraine headaches. Also, total nut/walnut consumption was inversely associated with higher headache duration and higher HDR score.

G-1322

Evaluation of the effectiveness of the program based on the COPE care model on the quality of life of caregivers of patients with heart failure

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Introduction: Heart failure is a chronic and progressive disease of the cardiovascular system that affects all levels of the quality of life of the patient and his family. This study was conducted with the aim of determining the effectiveness of the program based on the COPE care model on the quality of life of family caregivers of heart failure patients.

Method & material: This research is a two-group clinical trial that was conducted with the participation of 90 caregivers of heart failure patients in 2021-2022. Sampling was done by available method. The intervention based on the COPE model was conducted in the test group in six training sessions and WhatsApp follow-up during one month. The data were measured using the demographic information and quality of life questionnaire SF-36 before, immediately and three months after the intervention, and then the data were analyzed using SPSS version 26 software with a significance level of 0.05.

Result: According to the statistical data, in the test group, the average frequency of the quality of life score immediately (75.99) and three months after the intervention (78.84) was higher than before (62.77) after the intervention.

Conclusion: The results showed that the use of the COPE model is effective in increasing the quality of life of family caregivers of heart failure patients. Therefore, it is recommended to use this method in the educational units of the hospital.

G-1323

Challenges of the Health Systems in the Face of the COVID-19 Pandemic

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Introduction: COVID-19 was an epidemic disease first identified in the city of Wuhan, China. With the passage of time and its spread in the world, the health systems of countries and their services suffered significant challenges. This study examines the challenges of the health systems during the Covid-19 pandemic.

Method & material: This study was done by a comprehensive review of authentic literature and articles. The inclusion criteria for studies include original research articles, reviews, case reports, and published reports from relevant organizations related to the health sector, articles in English and Farsi, and all related articles published from 2019 to 2023, and the exclusion criteria for studies It included: theses, short reports, summaries of articles published in seminars and congresses, and the editor's report, and lack of access to the full text of the articles. The search was performed in PubMed, Scopus, SID, and Magiran databases and Google Scholar search engine using keywords. In total, 137 articles were retrieved. After removing duplicate articles and screening based on the purpose of the study, 16 articles were included in the study and analyzed.

Result: Challenges that the COVID-19 pandemic imposed on the health systems of countries include the lack of effective coordination between the health system and other executive and government agencies, especially in the early days of the outbreak, lack of justice in the distribution of health facilities between countries, lack of skilled workforces, lack of training of new recruits, stigma, fatigue and burnout of the health care staff, improper capacity building, lack of adequate access to financial resources, and lack of management of rumors in cyberspace and responding to them in a timely and convincing manner. The loss of specialized personnel, long-term physical and psychological damage inflicted on the medical staff, and the abuse of some stakeholders were also some of the damage done to the health systems caused by the COVID-19 pandemic that needs to be addressed in order to face similar disasters in the future.

Conclusion: The aforementioned challenges can be repeated in future biological events. By using the design of preventive and response protocols, the recruitment and training of efficient personnel, comprehensive information systems, and paying attention to the neglected policies of the health system such as PHC, it is possible to greatly reduce the severity of these challenges.

G-1324

Determining the optimum Octanol–water partition coefficient of Kojic acid for the formulation of skin products

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Introduction: Skin surface corneocytes limit the skin absorption of many hydrophilic drugs due to their high density, very low permeability, and high resistance to the penetration of substances into the skin and. Kojic acid (KA) is a natural substance that can inhibit the tyrosinase enzyme in melanin synthesis pathway and investigating its therapeutical effects in hyperpigmentation have become a topic of interest in numerous studies. Finding optimum conditions for skin permeation of KA is an important necessity due to KA's hydrophilic characteristic and poor skin penetration. This study was conducted to determine the optimum pH with the highest octanol-water partition coefficient (LogP) for formulating KA products.

Method & material: In this experimental study, first a saturated solution of KA was prepared in three buffers of acetate (pH=5.1), phosphate (pH=7), and borate (pH=9), and the calibration graph of KA was plotted using UV-HPLC. To obtain Log P of KA, the buffers were mixed with octanol on the shaking incubator, and after phase separation, the amount of KA in octanol, in buffer before and after mixing with octanol was determined by HPLC-UV. Afterwards, based on the area under the curve of each UV peak and the calibration curve, Log P was determined.

Result: The initial concentration of KA in acetate, phosphate, and borate buffers before mixing with octanol was 40.36, 44.24, 44.79 mg/ml; and the concentration of KA in octanol medium was 6.09, 10.32, 8.37 mg/ml; and the KA Log P was -0.75, -0.51, -0.63, respectively.

Conclusion: The optimum Log P for KA was obtained at pH=7; therefore, it is recommended to provide optimal condition for KA absorption by using ingredients which can effectively keep the pH of the product around 7.

G-1325

Association between metabolic syndrome and cognitive impairment: A meta-analysis of analytical observational studies

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Introduction: Metabolic syndrome (MetS), or insulin resistance syndrome is an interconnected set of metabolic abnormalities known as atherosclerotic risk factors. Cognitive impairment is generally defined as a decrease in performance in the areas of memory, language, attention, and the ability to understand visual space. Based on previous evidences, it is yet unknown that MetS is effect on the increases risk of dementia or cognitive disorders. In order to determine the association between MetS and cognitive disorders, we thoroughly reviewed publications on the risk of cognitive impairments in MetS patients.

Method & material: To examine the association between MetS and cognitive impairments, a thorough search of worldwide databases was carried out up through January 2023, including Medline (PubMed), Web of Sciences, Scopus, and Embase. Based on the PECOT structure, the Population included all population, Exposure was a people with MetS, the Comparison group in this study was people without MetS, and Outcomes included the occurrence of cognitive impairment. In the eligibility criteria's desired studies included cohort and case-control studies. The effect size was calculated using the relative risk (RR) with a 95% confidence interval. All analysis was done in STATA software (Version 17).

Result: 18 studies with 5,720,782 population (cohort and case-control) were included in this meta-analysis. The pooled estimate of the relative risk (RR) between MetS and cognitive decline was 1.34 (95% CI 1.25–1. 43).Based on the subgroup analysis, NCEP-ATP III can diagnose this association better than others. The risk of cognitive impairment in Mets patients in Asia is higher than the Europe, which were higher than America.

Conclusion: The link between MetS and cognitive disorders is multifaceted and involves various pathophysiological mechanisms. However, lifestyle modifications such as diet and exercise can help mitigate the risk of developing cognitive disorders in individuals with MetS. Therefore, it is crucial to address these underlying mechanisms through lifestyle changes to improve overall health outcomes.

G-1326

The association between type D personality and dyslipidemia

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Introduction: Type D personality shows a combination of negative affectivity(NA) and social inhibition(SI). NA indicates a more tendency to experience negative emotions. SI indicates more tendency to inhibit self-expression in social interactions. Type D personality is associated with various negative health outcomes. Metabolic syndrome is more prevalent in Type D personality people. It was shown that an abnormal lipid profile is associated with a higher SI score. The lack of investigations about the effect of type D personality exclusively on lipid profile makes us assess the correlation between Type D personality and dyslipidemia as a CVD risk factor.

Method & material: In this cross-sectional study after 10 years of follow-up, from 9704 healthy participants in the MASHAD cohort study at baseline, 7561 completed the study. Lipid profiles were measured at baseline and after 10 years of follow-up. We assessed the association of type D personality with lipid profile at baseline and after 10 years of follow-up—a validated questionnaire investigated type D personality.

Result: The results of this study showed that there is no significant difference in the mean score of type D personality and its subtypes in people with dyslipidemia (TG≥150 or HDL40 in males and 50 in females or LDL≥160). But the mean score of type D personality and negative affectivity in people with HDL40 in males and 50 in females was higher than the group with normal HDL. However, no significant difference was observed in the high TG and LDL groups. The logistic regression results showed that negative affectivity decreases HDL and Social inhibition increases THR (TG/HDL).

Conclusion: Type D personality association with dyslipidemia isn't meaningful. However, the negative affectivity and social inhibition component of type D personality might be particularly relevant to HDL and TG concentration changes.

G-1327

Investigating the antimicrobial effects of niosome nanoparticles containing turpentine extract on Streptococcus mutans

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Introduction: Streptococcus mutans is one of the essential microbial pathogens causing tooth decay. Through the production of cellular polysaccharides called biofilm, this bacterium can attach to tooth surfaces and enamel and cause tooth tissue destruction. Today, in addition to the usual methods based on chemicals, researchers use alternative methods, such as plant extracts (Pi st aci a at l ant i ca subsp. Kurdi ca), to treat and eliminate bacteria

Method & material: In this experimental study, first, different formulations of turpentine plant extract were prepared using different ratios of span and tween. After that, the physical and chemical properties of the synthesized Niosomes were studied by scanning electron microscopy (SEM) and DLS Zetasizer. Finally, the antibacterial effects of synthesized Niosomes in concentrations of 7.8 to 1000 µg/ml were studied by the microplate method.

Result: The optimal synthesized niosomes had a size of 129.7 nm and showed an encapsulation efficiency of 90.62%. Nanonisomes were evaluated in terms of morphological characteristics using a scanning electron microscope and the particles showed a single-layer spherical structure. Also, the results of antimicrobial tests showed that niosome containing turpentine extract has more significant antimicrobial effects than the extract, only against Streptococcus mutans.

Conclusion: According to the results, it can be concluded that niosomes containing turpentine plant extract can be a suitable nanocarrier for medicinal and antimicrobial purposes against Streptococcus mutans. It is suggested to use these nanoformulations in mouthwashes.

G-1328

The risk of Parkinson disease in diabetic people: an updated systematic review and meta-analysis

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Introduction: Previously, the relationship between DM and PD has been continuously explored but without a definite conclusion. Many case-control and cohort studies have been conducted, but their combined findings have generated disagreement. Diabetes mellitus (DM) and the risk of Parkinson's disease (PD) have been linked in previous studies. But the outcomes are still up for debate. This meta-analysis examined how Diabetes Mellitus affected the likelihood of developing Parkinson's disease.

Method & material: A comprehensive search of international databases, including Medline (PubMed), Web of Sciences, Scopus, and EMBASE until January 2023, was conducted to assess the relationship between Diabetes and Parkinson's disease. Cohort and case-control studies were included. Based on the duration of PD, continent, age, PD criteria, DM criteria, and effect size, subgroup analysis was carried out. In this meta-analysis, the effect size was calculated using the risk ratio (RR) and hazard ratio (HR) with a 95% confidence interval. Statistical analysis was performed using STATA 17.0, and a P-value 0.05 was considered.

Result: In the meta-analysis, 25 studies with 39,209,316 participants were included. The pooled estimate of the relative risk between diabetes and Parkinson's disease was 1.31 (95% CI 1.29–1.31). Results of subgroup analysis showed that patients in Asia with lower age and longer duration of PD, had higher risk to diabetes. The results in this section for the duration of PD (B: 0.014, SE: 0.023, P: 0.547) and based on year were not significant (B: -0.033, SE: 0.019, P: 0.113).

Conclusion: The results of this meta-analysis have shown that the presence of diabetes can increase the risk of developing PD. Based on these results, this can be a significant alarming for health policymakers all over the word, especially in developing countries, to pay attention to providing services and care related to PD while serving diabetic patients. Additionally, these results suggest that it is possible for other neurological diseases, such as PD, to occur in individuals with diabetes, and necessary measures should be taken to prevent these diseases in individuals with diabetes.

G-1329

Fish consumption and prostate cancer: a systematic review and meta-analysis

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Introduction: Since the release of the last meta-analysis on the association between fish intake and prostate cancer risk, several cohort studies have been published. Moreover, none of the previous meta-analyses examined the dose-response association. Therefore, the current dose-response meta-analysis was conducted to summarize available findings on the associations of fish intake with the risk of prostate cancer in men.

Method & material: Online databases of PubMed, Scopus, and Web of Science were systematically searched up to September 2022. We included prospective cohort studies that examined the associations of fish intake with the risk of prostate cancer (total, localized, and advanced prostate cancer), its mortality, and cancer progression. We also performed a web-based search in Google Scholar to find any missing articles.

Result: In total, 25 prospective cohort studies, recruiting 1,216,474 men, were included in the systematic review, and 22 studies were included in the meta-analysis. During the follow-up periods, a total of 44,722 cases of prostate cancer were recorded. The comparison between the highest and lowest intakes of total fish revealed the summary relative risks (RR) of 0.97 (95% confidence interval (CI): 0.86–1.10) for total, 1.01 (95% CI: 0.91-1.13) for advanced, and 0.90 (95% CI: 0.72-1.12) for localized prostate cancer, indicating no significant association. The summary RR was 0.55 (95% CI: 0.33-0.92) for prostate cancer mortality and 0.84 (95% CI: 0.65-1.10) for prostate cancer progression, indicating an inverse association between fish intake and prostate cancer mortality. Also, in the dose-response analyses, each 20 gram/day increase in total fish intake was associated with a 12% lower risk of prostate cancer mortality.

Conclusion: Our findings support the protective association between total fish intake and the risk of prostate cancer mortality.

G-1330

Socioeconomic inequality (SEI) in the risk of fatty liver and liver fibrosis based on BARD and FLI indices in the Dehgolan cohort population

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Introduction: The most prevalent form of liver disease is nonalcoholic fatty liver disease (NAFLD), which is a is becoming a more common health issue. Numerous articles have investigated the association between socioeconomic status (SEI) and the risk of fatty liver and liver fibrosis. Still, few have examined the health inequalities associated with NAFLD as measured by the BRAD and FLI indices. Therefore, this research aims to evaluate the role of SES using the BRAD and FLI indices in developing fatty liver and liver fibrosis.

Method & material: From February 2018 through March 2019, we used data from the baseline phase of the Dehgolan Prospective Cohort Study (DehPCS) from 3996 participants aged 35 to 70. Inequality is measured using the concentration index and concentration curve, and its causes are dissected using the Blinder-Oaxaca decomposition method.

FLI=(e0.953×loge(triglycerides)+0.139×BMI+0.718×loge(GGT)+0.053×waistcircumferenc e−15.745)/(1+e0.953×loge(triglycerides)+0.139×BMI+0.718×loge(GGT)+0.053×waistcircu mference−15.745) × 100

BARD score = AST/ALT ratio ≥0.8–2 points; a BMI ≥28 – 1 point; and diabetes – 1 point. The possible score ranges from 0 to 4 points.

Result: The prevalence FLI and BARD scores among the study population were 75.17 (95% CI: 73.77, 76.52) and 30.98 (95% CI: 29.53, 32.47). The concentration index results showed a positive concentration index for FLI (C= 0.07; 95% CI: 0.02, 0.11) and a negative concentration index for BARD (C= -0.07; 95% CI: -0.11, -0.03). The concentration curve is under the line for FLI, indicating a higher concentration in high SES, while it's above the line for BARD, showing a higher concentration in low SES.

Conclusion: Our result showed a higher prevalence of FLI and BARD in women and older and a lower prevalence with education level and job.

Finally, we concluded that FLI and BARD indices are affected by SEI; Education level, job, and marital status did this effect.

G-1331

Fat intake and pancreatic cancer: a systematic review and meta-analysis

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Introduction: Several studies have been published since the release of the previous meta-analysis on the link between dietary fat intake and pancreatic cancer. Also, the previous meta-analysis did not assess the dose-response association. Therefore, the current systematic review and meta-analysis of prospective cohort studies were conducted to update the previous findings and assess the dose-response association.

Method & material: We performed a systematic literature search in the online databases of PubMed, Scopus, and Web of Science until March 2023 to identify studies investigating the association between dietary fat intake and pancreatic cancer risk. We also conducted a web-based search using Google Scholar, with a combination of dietary fat and pancreatic cancer as search terms.

Result: In total, 9 prospective cohort studies with a total sample size of 1,331,651 participants and 4,527 cases of pancreatic cancer were included in the current systematic review and meta-analysis. A significant positive association between total fat intake and the risk of pancreatic cancer was observed among the high-quality studies (summary relative risk (RR): 1.38, 95% confidence interval (CI): 1.03-1.86, I2 = 0; P= 0.70), but not in the overall analysis (RR: 1.03, 95% CI: 0.87-1.20, I2 = 47.1%; P= 0.06). No evidence of linear or non-linear associations was detected. We found no significant association between different types of fats, including animal, plant, meat, and dairy, and the risk of pancreatic cancer, either in the comparison between the highest and lowest intake levels or in the dose-response meta-analysis.

Conclusion: The current meta-analysis indicates a positive association between dietary fat intake and pancreatic cancer risk when considering high-quality prospective cohort studies.

G-1332

Investigating the awareness and attitude of medical staff about telemedicine in teaching hospitals of Ferdows city

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Introduction: Telemedicine is an important information technology to provide remote healthcare to patients. The preparation and awareness of the treatment staff are essential factors for the successful implementation of telemedicine. The purpose of the present study is to investigate the level of knowledge and attitude of the medical staff about telemedicine in the teaching hospitals of Ferdows city.

Method & material: The current research is a descriptive cross-sectional study conducted in two teaching and therapeutic hospitals in Ferdows city in 2021. The statistical population of this research was the medical staff. To determine the sample size, the census method was used and the research community was considered as a sample. The inclusion criteria were healthcare staff working in Ferdows hospitals who were willing to participate in completing the questionnaires. Healthcare staff who did not want to cooperate or could not fill out the questionnaire were excluded from the study process. The data collection tool was Rezaei et al.'s questionnaire consisting of four sections (level of awareness, attitude, level of use, and obstacles). Questionnaires were presented to people with an easy-access and face-to-face approach. After completing the questionnaires, the information was entered into the statistical SPSS version 16 and descriptive statistics (frequency and percentage) were used to analyze the data.

Result: A total of 72 medical personnel were included in the study. 40.3% had little knowledge about telemedicine. The most and the least knowledge of the medical staff was respectively about the use of computers in medicine (44.4%) and the standards of telemedicine (11%). 73.6% had a positive attitude towards combining telemedicine with providing services. 26.3% of the treatment staff had used telemedicine, the most used of which was telephonic consultation service. 59.7% of the medical staff believed that the use of telemedicine improves the provision of health care services. Lack of access to high-speed and high-bandwidth Internet (68%), lack of necessary facilities and infrastructure to use this system (63.8%), and lack of knowledge and familiarity with this technology and its benefits (62.5%), from the most important obstacles to the use of telemedicine technology, were from the point of view of the medical staff.

Conclusion: This study showed that the level of awareness and use of telemedicine by the medical staff is low and the level of acceptance of telemedicine is high. In order to eliminate barriers and implement telemedicine, healthcare staff need comprehensive training to familiarize themselves with telemedicine services.

G-1333

Is neck to height ratio associated with obesity– related indices in patients with NAFLD?

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Introduction: Non-alcoholic fatty liver disease (NAFLD)- the most common chronic liver disrorder- is considered as the hepatic manifestation of metabolic disorders such as obesity. Due to the strong correlation between the severity of obesity and NAFLD, defining more accurate anthropometric indicators of obesity seems to be necessary. Behind the use of body mass index (BMI), nowadays, a number of indicators such as neck circumference (NC) as well as NC-to-height ratio (NHtR) are used as novel indices for the diagnosis of metabolic disease. Hence, we aimed to study the association between NHtR and obesity-related indices in patients with NAFLD.

Method & material: The proposal of this study was approved by IR.TBZMED.REC.1400.1099. This cross-sectional study included 175 participants (68 men and 107 women) aged 18-50 years and newly diagnosed with NAFLD (based on ultrasonography findings). NC was assessed to the nearest 0.1 cm with the head positioned along the Frankfurt plane, at mid-neck height, using a calibrated plastic tape. Waist circumference (WC), weight and height were measured and NHtR and BMI were calculated, respectively. After midnight fasting, biochemical markers including Triglyceride (TG), high-density lipoprotein cholesterol (HDL) and liver aminotransferases were assessed and obesity-related markers including, lipid accumulation products index (LAP), visceral adiposity index (VAI) and hepatic steatosis index (HSI) were calculated.

Result: Our results demonstrated a significant difference in NHtR between men and women (0.24 ± 0.02 for men and 0.23 ± 0.02 for women, respectively) (p=0.003), while, there were not any significant differences in obesity-related indices between two groups. Although, NHtR showed a non-significant negative correlation with VAI, it was positively correlated with LAP and HIS (r= 0.152, p=0.006 and r=0.311, p0.001, respectively).

Conclusion: It could be concluded that NHtR is associated with obesity- indices such as LAP and could be positively correlated with hepatic changes during NAFLD, through HSI. While, more studies are required to confirm these preliminary findings.

G-1334

Mediterranean diet and breast cancer: a case control study

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Introduction: Previous studies on the association between diet and breast cancer are mostly from Western populations and data from Middle East countries are scarce. Therefore, this population-based case-control study aimed to investigate the relationship between adherence to Mediterranean dietary pattern and breast cancer in Iranian women.

Method & material: In the current study, 350 new cases of breast cancer and 700 age- and socioeconomic status-matched controls were enrolled. We evaluated the dietary intakes of participants by using a 106-item Willett-format semi-quantitative dish-based food frequency questionnaire (SQ-FFQ). We calculated Mediterranean diet score according to the dietary intakes of participants. Also, by using pre-tested questionnaires, we collected information on potential confounding variables.

Result: In this study, we found a significant inverse association between Mediterranean diet and breast cancer so that after controlling for potential confounders, individuals in the highest tertile of Mediterranean diet score compared with those in the lowest tertile were 57% less likely to have breast cancer (odds ratio (OR): 0.43, 95% confidence interval (CI): 0.28-0.67). Such an inverse association was also observed for postmenopausal women; such that after controlling for potential confounding variables, high adherence to Mediterranean dietary pattern was associated with lower odds of breast cancer (OR: 0.37, 95% CI: 0.23-0.60). However, this relationship was not significant among premenopausal women.

Conclusion: We found that adherence to Mediterranean dietary pattern was associated with reduced odds of breast cancer. Studies with prospective design are needed to further examine this association.

G-1335

Muscle rehabilitation in Duchenne muscular dystrophy by myostatin: a scope systematic review

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Introduction: Background The passage discusses Duchenne muscular dystrophy (DMD) as a genetic disorder that results in muscle deterioration. Gene therapy may be the most probable treatment for progressive muscle breakdown, but studies also focus on rehabilitation and regaining muscle function. Immune system modulators such as myostatin may be effective in the pathogenesis and recovery of muscles. Aim The study aims to investigate the role of myostatin as a regulator of muscle volume in DMD and answer its research question. The role of these two pseudo-hormones in sarcopenia and cachexia of skeletal muscles has been identified, but according to the results of our search, this is the first systematic study on myostatin and its role in DMD.

Method & material: We set our writing criterion to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and the DMD definition criterion was International Classification of Diseases 11th. For the purpose of a scope study, examined all types of clinical studies and did not exclude animal studies. We extracted all the studies from 2012 to 2022 from Web of science (ISI), PubMed and Scopus databases and examined their merit based on PRISMA criteria. We gave and followed the results obtained in non-bias criteria and to answer PICO research question. We placed our keywords based on the Mesh database as follows: o Myostatin o Duchenne muscular dystrophy

Result: 98 articles were finally studied and confirmed by immunologists, and finally 17 studies were included in our study. The results show that the increase in myostatin levels in DMD compared to the non-patient group is inhibited by steroid drugs such as dexamethasone, which ultimately increases muscle volume, weight, and muscle strength (based on rheumatological criteria such as grip strength). Latent TGF-beta binding proteins (LTBPs), which are considered genetic modifiers in DMD, reduce myostatin expression. As expected, myostatin reduces the regulatory T cell pathway of FoxP3+ cells and Foxp3 gene expression in DMD, leading to muscle loss. Molecular and immune pathways were not well-discussed and were among the ambiguities we encountered.

Conclusion: Conclusion myostatin plays an important role in the progressive breakdown of muscles in DMD under an ambiguous process. Inhibiting it can help with muscle recovery and restore muscle strength. Further studies are recommended to determine the myostatin pathway in DMD.

G-1336

Combined healthy lifestyle and general and abdominal obesity: a cross-sectional study

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Introduction: Data linking joint healthy lifestyle factors to general and abdominal obesity are scarce, in particular in the Middle East. Furthermore, previous studies have not considered stress as a major component of lifestyle. Therefore, the current study aimed to assess the link between the whole lifestyle factors and general and abdominal obesity among a large population of Iranian adults.

Method & material: This cross-sectional study was done on 3,172 Iranian adults aged ≥18 years. We constructed healthy lifestyle score using information on dietary intakes, physical activity, smoking status, and psychological distress. To evaluate components of healthy lifestyle, we applied a validated 106-item semi-quantitative food frequency questionnaire (FFQ), General Practice Physical Activity Questionnaire (GPPAQ), General Health Questionnaire (GHQ), and other pre-tested questionnaires. General obesity was defined as having a body mass index (BMI) ≥30 kg/m2 and abdominal obesity as a waist circumference of ≥102 cm in men and ≥88 cm in women.

Result: Mean age of participants was 36.54 ± 7.97 years. General and abdominal obesity were prevalent among 8.7% and 21.5% of study participants, respectively. After taking potential confounders into account, a significant inverse association was seen between healthy lifestyle score and odds of general obesity; such that individuals with the greatest healthy lifestyle score were 77% less likely to be generally obese compared with those with the lowest score (odds ratio (OR): 0.23, 95% confidence intervals (CI): 0.05-0.98). No significant association was found between healthy lifestyle score and abdominal obesity either before or after adjusting for potential confounders.

Conclusion: We found that adherence to a healthy lifestyle was inversely associated with odds of general obesity. However, such an inverse association was not seen for abdominal obesity.

G-1337

New dimension of NK/T-lymphocyte lymphoma treatment: systematic review on immune system cytokines

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Introduction: BACKGROUND NK/T-lymphocyte lymphoma is the rarest and most unknown type of non-Hodgkin's lymphoma, whose immune pathway is somewhat unknown and its treatment options are limited. AIM In this systematic review, we investigate the role of the Janus kinase/signal transducers and activators of transcription (JAK/STAT) cell signaling pathway in NKTL physiology.

Method & material: Articles was studied and validated based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist. PubMed and Scopus databases were investigated in our study, we used the following keywords (based on MESH database) to search these databases and studied the studies from 2018 to 2023. • Lymphoma • IL-35/IL-27 • Epstein-Barr virus (EBV) Our study answered a research question based on the PICO criteria and observes the principle of non-bias in all stages of searching and writing

Result: 879 articles were reviewed, after applying the exclusion criteria, 71 articles were studied by two authors, and finally 9 articles were included in the study. The results show that the JAK/STAT pathway plays a significant role in NKTL signaling. Inhibitors of STAT3 and STAT5 in combination with other antibodies are considered a treatment option for NKTL. Increasing JAK/STAT phosphorylation by inflammatory cytokines such as interferon gamma (IFY) and its regulation by IL-10 has a high potential for the treatment of these cases. One of the pathways of Epstein-Barr virus (EBV) effect in cells is NKTL, which ultimately initiates cell cycle apoptosis.

Conclusion: The JAK/STAT pathway in NKTL is somewhat unknown, and the few available studies have tested only a few of this signaling family. However, their results show that this path has a high potential for attention in the pathology and treatment of NKTL. Treatments focused on inhibiting the JAK/STAT pathway were significantly more successful than simple chemotherapy.

G-1338

Investigating the effect of aromatherapy with rose water on anxiety and hemodynamic factors in patients who are candidates for cardiac angiography in Razi Hospital in 2019

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Introduction: Coronary angiography is a common diagnostic method for cardiovascular diseases, which may cause fear, stress, anxiety, and hemodynamic instability in patients. This study aimed to investigate the effect of aromatherapy with rose water on anxiety and hemodynamic factors in patients undergoing angiography at Razi Hospital in Birjand.

Method & material: This randomized controlled trial included 60 candidates for angiography admitted to the heart and critical care unit of Razi Hospital in 2021. Participants were selected using an available sampling method and randomly assigned to either the experimental group (n=30) or the control group (n=30). The night before angiography, the experimental group received three drops of nader rose water on a cotton swab attached to their clothes, while the control group received a placebo. Anxiety, respiration rate, blood pressure, and heart rate were measured before and one hour after the intervention, and data were analyzed using SPSS 18 statistical software at a significance level less than 0.05.

Result: Before the intervention, there were no significant differences in anxiety, blood pressure, heart rate, and respiration rate between the two groups. After the intervention, the mean score of state and trait anxiety in the experimental group was significantly lower than in the control group (p0.05), while other hemodynamic factors did not differ significantly. Furthermore, all hemodynamic factors showed a significant decrease in the experimental group after the intervention (p0.05). Changes in state and trait anxiety scores, heart rate, and breathing rate were significantly higher in the experimental group compared to the control group, while systolic and diastolic blood pressure changes did not differ significantly.

Conclusion: Aromatherapy with rose water can effectively reduce anxiety and prevent hemodynamic instability in patients undergoing angiography. Therefore, it could be considered as a complementary intervention to control anxiety and hemodynamic factors in similar clinical situations.

G-1339

Venture investment platform in start-up businesses and innovative ideas

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Introduction: Problem: Science and technology parks, in cooperation with universities of medical sciences, accompany student ideas from the time of idea to commercialization and provide limited funds to idea owners. In addition, the pulse of a startup is its financial flow, which is often secured through bank loans and is largely independent of innovative ideas, typically not venture capital, and strangers to innovation. In addition, the major problems that arise in the process of turning an idea into a business are often caused by the lack of experience and knowledge among young students, which ultimately leads to the failure of the idea or business enterprise.

Method & material: Problem solving : The existence of a platform that brings together experienced entrepreneurs and management experts with risk-taking investors turns two basic problems for every innovative idea into an opportunity for growth. The innovative ideas of the medical students are collected through student brainstorming, post-debriefing and through the web-based platform and evaluated by business experts in several stages under supervision. Ideas that have the potential of successful businesses are introduced to investors who complete the stages of commercialization, branding and establishment of the product cycle under the supervision of business experts. Investors, business experts and idea owners will share the benefits and risks of innovation on one platform. The knowledge and experience of experts minimizes the risk of failure in the early stages of business development. In addition, the budget for launching a startup is provided by several investors and under the supervision of business experts, it provides the possibility

Result: Marketing: The financial flow of this platform can be provided in two ways: the financial flow is either through receiving a certain percentage of the required budget determined for the idea or business and then exiting the flow of cooperation between idea owners and investors. The second way is to participate in the annual profit after the commercialization of the idea, which is possible in two ways: First, our business company is the owner of an agreed portion of the company's shares. The second way is to receive a certain profit as an annual contribution from the start-up company for a certain number of years. Business professionals who are introduced by our platform to work with idea owners and investors will benefit from this collaboration according to the described cash flow.

Conclusion:

G-1340

Sleep quality in multiple sclerosis: a systematic review and meta-analysis

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Introduction: Sleep quality is individual satisfaction with the sleep experience, which is likened to patients' quality of life. This study aims to investigate the sleep quality in multiple sclerosis (MS) patients in comparison to healthy controls (HCs).

Method & material: Following the PRISMA statement, a systematic search was conducted through PubMed (MEDLINE), Web of Science, Scopus, and Embase online databases and studies which assessed the sleep quality based on the Pittsburgh Sleep Quality Index (PSQI), in MS patients and HCs were included. The risk of bias in the included studies is assessed using the Joanna Briggs Institute (JBI) critical appraisal tools and meta-analysis was conducted using the random effect model by the third version of Comprehensive Meta-Analysis (CMA3).

Result: Out of 1574 identified records, 13 studies were included. Regarding the PSQI scores, this difference was statistically significant (10 studies; I2:94.61%; Standard difference in means: 1.065 (95%CI: 0.758-1.372; p-value0.001). MS patients were found to have more prevalence of poor sleep quality (PSQI5); however, the difference is not statistically significant (4 studies; I2: 87.08%; odds ratio: 2.31 [95% CIs: 0.82-6.35]; p-value: 0.113).

Conclusion: The limited available evidence suggested that sleep quality is affected by MS and it should be considered by the clinicians for prevention of sleep-related symptoms. Future well-designed studies are needed to reach a comprehensive conclusion on this topic.

G-1341

Congenital heart disease is not alone: a systematic review of brain development disorders

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Introduction: Congenital heart disease (CHD) is the most severe and common malformation in children, in addition to cardiovascular damage that affects 6-13 per 1000 people, so we expect to see disorders in the growth and function of this vital organ in infants and children with CHD. In this study, in order to Clarifying the effects of CHD on brain growth and function, we reviewed recent articles in this field.

Method & material: For this review, we reviewed articles from the years 2020 to 2022 based on the following keywords in PubMed, Scopus and Google Scholar databases (results follow up). . Congenital heart disease . congenital heart disease and brain development We used Prisma as the basis of our systematic review. Articles were read by two authors and case report and narrative review studies were excluded. The focus of identifying articles in the identification stage was the research question based on the PICO criteria. After Screening and Eligibility at the end, 13 articles were included, after exclude duplicates and un useful abstracts, in the study.

Result: After reading the articles by two of the authors, finally 13 articles were obtained, divided into 6 cohort articles and 7 case-control articles in 3 multi-center and 10 single-center articles. The population obtained from 8 titles in the prenatal and fetal period and 5 titles in the neonatal period, finally 715 CHD cases and 383 control subjects were obtained. Less movement, lower overall brain volume, lower subcortical brain tissue volume, lower ratio of extra cerebrospinal fluid to intracranial cavity volume, lower extracerebral-spinal fluid volume, puberty, delayed brain development, smaller cerebellar diameter, higher ventricular pathology. Higher corneal pathology and higher biometric parameters, finally lower cognitive-linguistic and motor scores were the results obtained from the comparison of the studied groups. However, there was a difference between the types of heart damage, for example, in d-transposition of the great artery, a decrease in volume and white brain damage was reported, while in

Conclusion: Most of the articles emphasized on the total volume and the volume of brain components, however, the cortical growth disorder on gray and white matter also shows the emphasis on the impact of CHD on the growth and development of the brain in affected infants. Therefore, the inclusion of brain damage management in the treatment plan of CHD infants is necessary.

G-1342

Lymphoma pathophysiology effected by interleukins 27, 35 and 39: a comprehensive systematic study based on the JAK/STAT pathway

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Introduction: Interleukin 12 family plays many roles in the immune system. IL-35 is one of the newest members of this family, which, along with IL-27 (previously known), did not play a specific role in the course of lymphoma (cancer cells of lymphocytes). Aim In this systematic review, we investigate the role of IL-35 and IL-27 in the course of lymphoma, and we intend to answer our research question based on the PICO criteria.

Method & material: All the articles from 2018-2022 were extracted from Web of Science, PubMed and Scopus databases. The results were analyzed in the Cochrane database. A non-meta-analysis and comprehensive systematic review was written based on Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria and the principle of non-bias was respected. keywords base on Mesh base was: o IL-12 family o IL-35/IL-27 o Lymphoma

Result: A total of 13 studies were obtained, of which 5 studies measured the level of IL-35 in lymphoma and 8 studies dealt with the role of IL-27 in lymphoma. The total level of IL-35 is more reported in vitreoretinal lymphoma and diffuse-large B-cell lymphoma (DLBCL) patients. Patients who received interleukin-35 inhibitor showed a more effective chemotherapy response. In addition, IL-27 in its presence balances regulatory T lymphocytes and prevents programmed death-1 (PD-1) of macrophages in lymphoma through STAT3 pathway signaling. Only one study mentioned the sequence similarity of IL-35 from the common lymphoma virus, Epstein-Barr Virus. Both mentioned interleukins have a protein chain secreted by this virus in their structure, but studies of the relationship between this similarity have not been used for the treatment or diagnosis of lymphoma.

Conclusion: IL-35 and IL-27 can be considered as diagnostic tools, because the increase of IL-35 and IL-27 in our studies was introduced to the pathology of lymphoma types. Therefore, the reason for the treatment of lymphocyte cancer cells can be inhibiting IL-35 and stimulating the production of IL-27 in all types of lymphomas that show resistance to chemotherapy or have a weak response to treatment.

G-1343

Is there a relationship between cerebral palsy and tobacco during pregnancy? A systematic review of pediatric health

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Introduction: Cerebral palsy (CP) is actually a group of permanent movement disorders in the nervous system that are caused by congenital anomalies or injuries to the brain in the early stages of development. The cause of this disorder is damage to the immature brain during development, often before birth. Today, smoking is a global problem, that evidence shows that pregnant women are also a part of the population of tobacco product users. The purpose of this article is to investigate the effect of maternal tobacco use on children with cerebral palsy.

Method & material: This article was written according to PRISMA criteria from January 2018 to January 2022. After examining the four stages of PRISMA criteria identification, screening, eligibility and inclusion, we selected clinical trial articles. These articles were selected from Pubmed, Scopus and Google scholar (for results follow-up) databases and 39 articles were studied and 5 of them were used in this article. The words we searched in these databases include: . Cerebral palsy . Prenatal Tobacco/smoking . Neurological disorders The selection of articles was based on the answer to the research question based on the PICO criteria.

Result: 5 articles were selected after the study by two of the authors. The statistical population of 1,200 with 71% statistics for children with neurological disorders up to ten years old whose mother's used tobacco was attacked by an article with the statistical population of 1,826 children that stated Tobacco consumption is not associated with neurological disorders in children. A study with a population of 242,342 births, finally, the statistics of 5.3% of the cause of neurological disorders with the cause of tobacco made this comparison weightier towards the role of tobacco damage. Among the total of 488 CP children population, 52% of mothers were tobacco users, of which 75% were exposed mothers and 25% were direct users, compared to 48% attributed to other causes.

Conclusion: A high statistical population shows the damage of tobacco during pregnancy, which includes other neurological disorders in addition to CP. As an important health indicator for our society, we suggest that mothers avoid exposure to tobacco during pregnancy, either directly or indirectly. We suggest that more studies be done in this field and identify more disorders of the nervous system that are related to maternal tobacco.

G-1344

Investigating the status of respect for individual independence, privacy, secrets and information of mother and baby from the point of view of midwifery personnel working in public hospitals of Mashhad University of Medical Sciences in 2022

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Introduction: Health services for mothers and babies should be comprehensive, comprehensive and combined with respect for individual independence, privacy, secrets and information of mother and baby. The present study was conducted with the aim of determining the status of respect for individual independence, privacy, secrets and information of mother and baby from the point of view of midwifery personnel working in public hospitals of Mashhad University of Medical Sciences in 2022.

Method & material: This cross-sectional descriptive study was conducted by census method and available on 243 midwifery personnel working in public hospitals of Mashhad University of Medical Sciences. The data were collected with an electronic researcher's questionnaire and analyzed using SPSS-22 statistical software, one-sample t, independent t, one-way analysis of variance, Tukey's post hoc, and Pearson correlation coefficient at a significance level of p0.05.

Result: The average age of the participants was 35.00±5.02 years (minimum age 24 years and maximum 42 years). The findings showed that the average score of respect for individual independence (3.39±0.21), privacy protection (3.64±0.27), secrets and information of mother and baby (3.71±0.26) in It is average (p0.001).

Conclusion: Inadequate and weak attitude of mothers regarding their own rights regarding respect for individual independence, privacy, secrets and information can be caused by low self-confidence and lack of mother's knowledge about her and her baby's rights in the hospital. Therefore, it is necessary for managers and health policymakers to strengthen these concepts in health service providers by providing scientific and practical programs.

G-1345

Comparison of the impact of using virtual education on perceived stress and academic motivation of different majors students in Baqiyatallah University of Medical Sciences

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Introduction: With the spread of the Covid-19 disease in China and becoming an epidemic all over the world, governments were forced to close scientific institutions and universities in order to control infection and death, and were required to use virtual education in an unprecedented manner, which caused increased stress in between students and on the other hand, it affected their academic motivation, so the purpose of this study was to investigate the effect of using virtual education on the level of perceived stress and academic motivation of students under virtual education.

Method & material: The present study is a descriptive-analytical type that was conducted in the period of 2021-2020 in Baqiyatullah University of Medical Sciences among 300 students. In order to collect demographic data, a researcher-made questionnaire was used, as well as Cohen's perceived stress questionnaire and Harter's academic motivation questionnaire. which was collected virtually with the help of the press line of the participants' information. To analyze the data, parametric test in normal distribution of data and non-parametric test in non-normal distribution of data were performed with the help of SPSS version 22 software.

Result: The results of this study indicate that most of the participants (70.2%) had a high level of academic motivation, and on the other hand, most of the participants (83.4%) had a high level of perceived stress. Among participating students with different majors, pharmacy students had the highest and medical students had the lowest level of perceived stress. Also, dental and medical students had the highest and lowest levels of academic motivation, respectively.

Conclusion: The results of this study show that there is a significant relationship between the use of virtual education with the level of educational stress and academic motivation, so that most of the students who were under virtual education experienced academic stress at a severe level and had high academic motivation. Considering this issue, by making appropriate decisions, it is possible to prevent the occurrence of mental disorders caused by high stress and reduce educational pressure, which increases learning and academic progress among students.

G-1346

Investigating the effect of glucosamine on the intestinal absorption of beta-blockers

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Introduction: Glucosamine is widely used nowadays because of its positive effects on preservation and strength of connective tissue, as well as its analgesic and anti-inflammatory effects to improve the quality of life of people with osteoarthritis. Beta-blockers are a wide range of medicine used extensively in the treatment of cardiovascular diseases. Due to high prevalence of concurrent administration of these medicines in old generations, we conducted this study to investigate possible effect of glucosamine on the intestinal absorption of beta-blockers.

Method & material: Four types of solutions were prepared by mixing fixed concentrations of propranolol 20 µg/ml with different concentrations of glucosamine. Each of these solutions was perfused on three rats by the SPIP method, and following 60 minutes, the output solution was sampled at certain time intervals. The obtained samples were analyzed by HPLC-UV and the results were analyzed by ANOVA test.

Result: The first (control), second, third, and fourth groups contained 0, 100, 500, and 1000 µg/ml glucosamine, respectively. The second, third, and fourth groups presented meaningful increase in effective intestinal permeability compared to the first group which did not contain glucosamine. All these differences were significant compared to the control group.

Conclusion: Glucosamine can induce a significant change in intestinal absorption level of some medicines, including beta-blockers. This variation can disrupt the treatment procedure and necessitate dose adjustment for patients.

G-1347

Prevalence of depression and its associated factors among pregnant women in the course of the COVID-19 pandemic

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Introduction: This study aimed to determine the prevalence of depression and its associated factors among pregnant women during the COVID-19 pandemic. Health is mentioned as a prerequisite for sustainable development in every society, and pregnant women play an irreplaceable role as the central axis of the health of society.

Method & material: A census-based cross-sectional analytical study was conducted with 102 pregnant women living in northeastern Iran, in 2021. The data was collected using a two-part electronic questionnaire that included standard demographic questions and the Beck Depression Inventory items. Data were analyzed by SPSS-22 statistical software using descriptive and inferential statistics methods tests. The significance level was established at P 0.05.

Result: The mean depression score of pregnant women was 25.77 ± 6.62, with the majority (53.9%) suffering from moderate depression. The prevalence of depression was lower among university-educated women than those with lower-level degrees and among employed women than homemakers (P 0.05). The third trimester of pregnancy was associated with an increased risk of depression (P 0.001). The prevalence of depression increased with increasing numbers of children (P 0.001). Miscarriage, a family history of depression, an unwanted pregnancy, and the infliction of close relatives with COVID-19 all increased the risk of depression in women (P 0.05).

Conclusion: Pregnancy during a COVID-19 pandemic can be associated with potential complications for the embryo, mother, and child. In the midst of the current global COVID-19 Pandemic, it is imperative that all pregnant women undergo routine screening for depression as part of their prenatal care.

G-1348

retrospective investigation of how the serum levels of interleukin-6, C-reactive protein, and lactate dehydrogenase correlate with hemoglobin oxygen saturation percentage and the type of respiratory support received by COVID-19 patients hospitalized in

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Introduction: The clinical care of patients with COVID-19 requires knowledge of laboratory findings and their relationship to the type of respiratory support. This study aimed to shed light on how serum levels of interleukin-6, C-reactive protein, and lactate dehydrogenase correlate with hemoglobin oxygen saturation percentage and the type of respiratory support received in COVID-19 patients.

Method & material: This descriptive-analytical study was conducted using data from the clinical records of 31 patients admitted to the intensive care unit. Data were collected using a researcher-made checklist and analyzed using Kolmogorov-Smirnov, independent t, one-way analysis of variance, and Tukey's post hoc statistical tests in the SPSS-22 statistical package. The level of significance was set to p 0.05.

Result: The mean serum levels of IL-6, CRP, and LDH were significantly higher in patients with SpO2 93 than in patients with SpO2 ≥93 (p 0.05). Patients receiving intubation and non-invasive respiratory support exhibited significantly higher serum levels of IL-6, CRP, and LDH than patients receiving other respiratory support (p 0.05).

Conclusion: Understanding the correlations between serum IL-6, CRP, LDH, and SPO2 levels and the type of respiratory support allows for more rapid and effective care for COVID-19 patients in a wider range of clinical circumstances.

G-1349

Evaluating the Effect of Empagliflozin on Sex Hormones and Oxidative Stress Markers in Rats with Type 2

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Introduction: Empagliflozin is a new class of sodium-glucose transporter 2 (SGLT2) inhibitors that reduces blood sugar in type 2 diabetic patients by acting independent of the insulin pathway (1). Long-term hyperglycemia in diabetic patients causes an increase in reactive oxygen species (ROS) and disorders the balance of antioxidants and oxidants which in turn causes a decrease in the secretion of sex hormones (2,3). therefore, based on the antioxidant potential of empagliflozin, the aim of this study was to investigate the effect of empagliflozin on the level of lipid peroxidation, total antioxidant capacity (TAC),superoxide dismutase (SOD) and sex hormones in type 2 diabetic rats

Method & material: 18 adult male rats were divided into: control, diabetic (streptozotocin (65 mg/kg b.w) and nicotinamide (110mg/kg b.w), intraperitoneal injection) and diabetic+Empagliflozin group (10 mg/kg b.w/day, gavage, 8 weeks).After 8 weeks, blood was collected from all groups and after serum separation, serum levels of luteinizing hormone (LH), follicle stimulating hormone (FSH) and testosterone were measured with the help of a special kit and by ELISA method also, to measure oxidative stress factors, including the level of lipid peroxidation, malondialdehyde (MDA) and superoxide dismutase (SOD), the fluorometric method was used, and the total antioxidant capacity (TAC) was evaluated based on the FRAP method. Data were analyzed using ONE WAY ANOVA and Tuky's test, and p0.05 was considered significant.

Result: A significant decrease in the mean level of LH, FSH, testosterone, SOD and TAC ($P<0.001$) and a significant increase in the mean level of MDA ($P<0.001$) were observed in the diabetic group compared to the control group.In the diabetic + Empagliflozin group, a significant increase in the level of LH ($P<0.01$), FSH, testosterone, SOD ($P<0.001$) and TAC ($P<0.05$) and a significant decrease in the level of MDA ($p< 0.01$)were observed compared to the diabetic group(table1).

Conclusion: Our results indicated that empagliflozin improves oxidative stress parameters and sex hormones due to diabetes.

G-1350

Investigating the Viewpoint and Evaluating the Quality of Clinical Education of the Midwifery Internship Plan from the Viewpoint of the Midwifery Professors

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Introduction: One of the missions and goals of midwifery department is to ensure that midwifery graduates acquire the necessary skills. Clinical Education is the most important part of learning professional behaviors, skills and activities of students of this field. According to the lack of history of internship plan in midwifery in Iran, the purpose of this study was to investigate the viewpoint and evaluate the quality of clinical education of midwifery internship plan from the viewpoint of midwifery professors.

Method & material: This clinical trial study was conducted on15 faculty members of the Department of Midwifery and Reproductive Health in the academic year 1400-1401 at Isfahan University of Medical Sciences, Iran. After selecting the samples in the form of a census and checking the entry criteria, obtaining an informed consent form and a three-part questionnaire: Demographics and education, quality of clinical education and professors' views on the status of clinical education were completed after the implementation of the internship. Internship plan during three stages: The preparations for the implementation, the implementation plan and the evaluation were held under the supervision of the professors of the midwifery department and with the help of teaching colleagues in hospitals and educational comprehensive health centers. Data analysis was done with SPSS version22, through descriptive statistical methods.

Result: The mean(standard deviation) age of the studied professors was 47.62(4.32) years, and among the professors,11 had a PhD degree and 4 had a master's degree. The mean(standard deviation) of the clinical quality score and professors' views on the implementation of clinical internship training in midwifery internship period were 73.73(5.68) and 36.53(2.87) respectively.

Conclusion: According to the viewpoint of the midwifery professors, the quality level of the internship plan was good and the professors' opinion about the implementation of this program was positive. Therefore, holding an internship course for midwifery students in the form of an internship can play a significant role in improving the acquisition of clinical skills and increasing the quality of clinical education, especially the self-confidence of students. The type of course unit and the clinical environment are factors affecting the educational quality of midwifery internship. It seems that the implementation of internship by creating the opportunity to perform a sufficient number of independent clinical procedures by the final year midwifery students can lead to improving the quality of midwives' services, especially newly graduated midwives.

G-1351

An unhealthy plant–based diet increases the risk of hypertension but not Framingham risk score in adults

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Introduction: Several factors such as age, genetics, sex and lifestyle factors such as unhealthy eating habits, great sodium and light potassium intake, overweight or obesity and physical inactivity can increase BP levels. Moreover, different dietary components and groups of foods are known to have an association with HTN risk. In order to clarify the relation between HTN and dietary intakes, we investigated the relation of plant-based diets (PDs) with hypertension (HTN) and Framingham risk score (FRS) in Iranian adults. We hypothesized that healthy PDs might have positive effects on blood pressure (BP) and FRS, while less-healthy plant-based foods might have negative effects.

Method & material: The current cross-sectional study was performed on 527 middle-aged adults (45.7% women), that were selected through a multistage cluster random-sampling method. Assessment of dietary intakes was done by the use of a validated food frequency questionnaire (FFQ). Twelve-hour fasting blood samples were collected to evaluate total cholesterol (TC) and high density lipoprotein (HDL-c) concentrations. BP was measured through the standard method and HTN was defined as BP ≥ 130/80 mmHg. FRS was used to predict the 10-year risk for development of cardiovascular disease (CVD).

Result: The prevalence of HTN and high FRS among study participants were respectively 62% and 15.6%. After adjustment for potential confounders, plant-based diet index (PDI) and healthy plant-based diet index (hPDI) were not significantly associated with HTN (OR: 0.99; 95%CI: 0.55-1.79 and OR: 0.83; 95%CI: 0.45-1.53, respectively). However, those in the top tertile of unhealthy plant-based diet index (uPDI) in comparison to those in the bottom tertile had a 100% increased odds of HTN (OR: 2.00; 95%CI: 1.04-3.88). Greater adherence to PDI, hPDI and uPDI was not related to high FRS chance, in fully-adjusted model (OR: 0.50; 95%CI: 0.15-1.65; OR: 1.03; 95%CI: 0.26-4.04; and OR: 2.05; 95%CI: 0.56-7.52, respectively).

Conclusion: This study demonstrated that less-healthy plant-based diets would enhance the chance of HTN in Iranian adults, although plant-based diet indices were not significantly correlated to the 10-year risk of developing CVD.

G-1352

Examining family cohesion during the virtual education of students in the course of the COVID-19 pandemic

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Introduction: The COVID-19 pandemic is linked to the development of virtual education for students at home and a shift in the parental role. The family's cohesion and structure can be affected by a change in parental roles. This study was designed and conducted to determine the effect of the virtual education system on family cohesion during the COVID-19 pandemic.

Method & material: A cross-sectional descriptive-analytical study was conducted with 374 parents of public school students in Khaf city in 2021. Samani's family cohesion questionnaire was utilized to collect the required data, which were then analyzed in SPSS version 26 using Tukey's one-way analysis of variance and post hoc statistical tests. The level of significance was set to p0.05.

Result: A total of 260 mothers (69 percent) and 114 fathers (31 percent) had the primary role and assistance in their child's virtual education. The majority of participants (47.9%) were parents of elementary school students. The mean family cohesion score among the parents was 81.69±23.66, indicating a moderate level. There was a significant difference (p0.05) in the mean score of family cohesion among the studied parents based on the student's education stage, the parent's education level, occupation, and monthly income.

Conclusion: The moderate level of family cohesion during the COVID-19 pandemic is an alarming sign for family health. This calls for increased focus on the family issue. Excellence and family cohesion necessitate accurate and practical programs to identify the problems families face during the virtual education of students.

G-1353

The effect of eight weeks of Pilates exercises on anthropometric indices and subjective well-being in obese middle-aged women

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Introduction: This study aimed to investigate the impact of eight weeks of Pilates training on anthropometric indices and subjective well-being in obese middle-aged women. Exercise is one of the most effective means of enhancing subjective well-being, preventing obesity, and maintaining good health.

Method & material: In this quasi-experimental study, 40 eligible obese middle-aged women of Khaf Fitness Plus Sports Club were voluntarily recruited and randomly assigned to Pilates and control groups. The Pilates group participated in eight weeks of Pilates exercises performed three times weekly. The subjective well-being survey and a checklist of anthropometric indices were completed for all individuals 24 hours before and 72 hours after the intervention. Data were analyzed in SPSS-15 statistical software using Kolmogorov-Smirnov, independent t-test, paired t-test, chi-square, and Fisher exact tests. The significance level was set at p 0.05.

Result: After the intervention, the experimental group had significantly lower mean weight, body mass index, and waist-to-hip ratio than the control group (p 0.05). The mean scores of emotional, psychological, and social well-being in the experimental group increased significantly after the intervention compared to baseline (p 0.01).

Conclusion: The results reveal that eight weeks of Pilates exercises significantly reduce anthropometric indices and increase subjective well-being dimensions (emotional, psychological, and social well-being) in obese middle-aged women.

G-1354

Impact of online resilience training on perceived stress in family caregivers of COVID-19 patients

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Introduction: Stress is a psychological trauma that the family caregivers of COVID-19 patients may experience. Stress as such can impair the caregivers' positive adaptation to stressful experiences, i.e., their resilience, leading to a decline in the quality of patient care. This study aimed to determine the effect of online resilience training on perceived stress levels among family caregivers of COVID-19 patients.

Method & material: Twenty family caregivers of COVID-19 patients discharged on the same day from 22nd-Bahman Hospital of Khaf were recruited by census and assigned randomly to experimental or control groups in a quasi-experimental study. Before and after the intervention, data on the caregivers' demographic characteristics, resilience, and perceived stress were collected using electronic questionnaires. One month of training was given to the experimental group via the WhatsApp application. Data were analyzed by SPSS-22 statistical software using the Kolmogorov-Smirnov, Levine's, and analysis of covariance tests. The level of significance was set to $\alpha = 0.05$.

Result: In this study, 20 family caregivers of COVID-19 patients were allocated to experimental (4 men and 6 women) and control (3 men and 7 women) groups. Post-test scores for perceived stress ($F = 290.34$, P 0.001) and resilience ($F = 799.794$, P 0.001) revealed a significant difference between the experimental and control groups.

Conclusion: The results demonstrated that online resilience training is an effective method for lessening perceived stress and enhancing the resilience of COVID-19 patients' family caregivers.

G-1355

Developing a model of the post-COVID-19 era healthy lifestyle

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Introduction: The pandemic disease of COVID-19 has caused extensive changes in people's lifestyles with its widespread spread. These extensive changes have necessitated the increasing need to have a healthy lifestyle in the post-COVID-19 era. The current research was conducted with the aim of designing a healthy lifestyle model in the post-COVID-19 era.

Method & material: The current research is a qualitative study of the grounded theory type which was done by purposive sampling method and using the Strauss and Corbin paradigm model. Data were collected using semi-structured interviews. The researcher reached theoretical saturation by the end of the 13th interview, but for more certainty, the interviews continued until the 15th interview. Data analysis was done using the coding obtained from interviews with experts, using MAXQDA software version 2020.

Result: 189 initial codes were extracted by the researcher, and after removing those repetitive concepts, 154 final concepts were obtained. The result of the axial coding stage was the identification of 36 main categories, which were placed in the 6 main categories of the paradigmatic model in the selective coding stage. The results of the research led to the presentation of a healthy lifestyle model in the post-corona era. According to the paradigm model, a healthy lifestyle in the post-COVID-19 era includes 5 causal factors, 10 Contextual factors, 7 Interventional factors, 10 Strategic factors, and finally 5 Outcomes of social health, mental health, physical health, life expectancy, and movement towards development.

Conclusion: To achieve a healthy lifestyle, appropriate behaviors based on this model must be promoted at the community level by health policymakers. Additionally, it is important to give special attention to public health and the prevalence of infectious diseases for the practical implementation of this model.

G-1356

Effect of Vitamin D status on COVID-19 susceptibility: A systematic review of observational studies

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Introduction: The coronavirus disease 2019 (COVID-19) pandemic has strongly affected global healthcare systems. Vitamin D deficiency has long been associated with a reduced immune function that can lead to viral infections such as COVID-19. However, previous studies lack consistent conclusions as to whether Vitamin D deficiency is actually linked to COVID-19 susceptibility as claimed. This systematic review aims to study the effect of vitamin D supplementation on COVID-19 susceptibility.

Method & material: We conducted searches of published literature in PubMed, Scopus, Web of Science, and Google Scholar databases from inception until February 2023. All observational studies (cross-sectional or cohort or case-control) which investigated the effects of vitamin D status on COVID-19 susceptibility were included in our study. Two researchers independently checked titles and abstracts, evaluated full-text studies, extracted data, and appraised their quality using the Newcastle-Ottawa Scale (NOS). The search consisted of the terms (Vitamin D, OR 25-Hydroxyvitamin D, OR Low vitamin D.) AND (COVID-19 OR 2019-nCoV OR Coronavirus OR SARS-CoV-2) AND (disease severity OR OR ICU admission OR mortality OR hospitalization OR infection). We followed the recommended PRISMA guidelines in executing this study

Result: Of 3,245 search results, 18 studies satisfying eligibility criteria were included. All the included studies reported a positive relationship between vitamin D sufficiency and improved COVID-19 outcomes. Five studies reported that vitamin D-deficient patients were more likely to develop severe COVID-19 disease compared to vitamin D-sufficient patients. Four studies found that vitamin D-deficient patients were more likely to die from COVID-19 compared to vitamin D-sufficient patients. Additionally, nine studies reported that vitamin D-deficient patients were more likely to be COVID-19 infected compared to vitamin D-sufficient patients. Results from these observational studies propose that vitamin D may serve as a mitigating effect for COVID-19 infection, severity, and mortality

Conclusion: Observational studies propose vitamin D deficiency/insufficiency increases susceptibility to COVID-19 and severe COVID-19. Vitamin D might play an important role in protecting from COVID-19, and in high-risk patients with COVID-19 from progressing to the critical clinical complaint and reducing mortality.

G-1357

Circulating levels of 25-hydroxyvitamin D in relation to hypertension in children and adolescents: A systematic review and dose-response meta-analysis of epidemiologic studies with GRADE assessment

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Introduction: HTN, or elevated blood pressure (BP), as a common known risk factor for cardiovascular disease (CVD) and renal disorders, is also related to a variety of other diseases which are significantly contributed to mortality (1, 2). Previous investigations suggested that decreased circulating 25(OH)D level has an association with poor health outcomes among children, notably those chronic health conditions which are related to obesity, most specifically HTN (3, 4). However, findings of previous observational investigations about the relation between circulating 25-hydroxyvitamin D (25(OH)D) and hypertension (HTN) in children and adolescents were inconsistent. This systematic review and dose-response meta-analysis summarized the relation between circulating 25(OH)D and childhood HTN in epidemiologic studies.

Method & material: A systematic search of four electronic databases, MEDLINE (PubMed), Web of Science (ISI) and Scopus and Google Scholar was performed up to June 2023. A total of 20 observational investigations that examined the relation of circulating 25(OH)D among children and adolescents and HTN, and reported RRs or ORs with 95% CIs were included.

Result: Findings demonstrated that greater circulating 25(OH)D had an association with a 20% decline in odds of HTN (95%CI: 0.69, 0.93). Although a significant inverse relation was seen among highest 25(OH)D concentrations and odds of HTN in cross-sectional studies (OR=0.80; 95%CI: 0.67, 0.96), cohorts did not illustrate a significant relation (RR=0.76; 95%CI: 0.52, 1.12). Also, the observed relation of 25(OH)D levels and odds of HTN was significant in non-Asian societies (OR=0.64; 95%CI: 0.50, 0.80), but not in Asian societies (OR=0.99; 95%CI: 0.88, 1.12). Linear dose-response analysis demonstrated that each 25 nmol/L increment in 25(OH)D concentrations was related with a 5% marginal decrease in odds of HTN (OR=0.95; 95% CI: 0.89, 1.01). Furthermore, a significant U-shape nonlinear association was found between 25(OH)D concentrations and HTN.

Conclusion: In conclusion, greater levels of circulating 25(OH)D levels was linked to a significantly decreased odds of childhood HTN.

G-1358

The Effect of Curcumin on immune system imbalance in Multiple Sclerosis Patients: A systematic review

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Introduction: Multiple sclerosis (MS) is a chronic autoimmune neurodegenerative disorder of the nervous system that is one of the most common inflammatory neurodegenerative diseases of the central nervous system (CNS) in young adults. Oxidative stress and immune-mediated inflammation are important mechanisms in patients with MS. Therefore, antioxidant therapy may help restore these deficiencies and support the antioxidant defense capacity. Curcumin, the most active component of turmeric, is one of these compounds and has been shown to relieve inflammatory conditions. No integrated analysis has been performed to summarize the effect of probiotics on the treatment of covid-19 patients to date. This study aims to examine curcumin's effect on Oxidative stress and inflammation factors in MS patients.

Method & material: We conducted searches of published literature in PubMed, Scopus, Web of Science, and Google Scholar databases from inception until June 2023. All Interventional and human studies which investigated the effects of curcumin on MS patients were included in our study. Two researchers independently checked titles and abstracts, evaluated full-text studies, extracted data, and appraised their quality using the Cochrane collaboration's tool.

Result: Of 1125 search results, 7 studies satisfying eligibility criteria were included. All the included studies reported a positive relationship between curcumin and improved MS outcomes. Two studies were that curcumin cannot be an effective alternative therapy to relieve MS symptoms. Three studies reported that curcumin seems to be a promising therapeutic candidate for MS. A study showed the effectiveness of curcumin-2GE due to having anti-neuroinflammatory effects. A study showed that curcumin protects the neuronal axons by inhibiting the production of NO and JNK phosphorylation

Conclusion: Curcumin is a potential therapeutic agent that can reduce MS neuroimmune system imbalance and demyelination through its anti-inflammatory and antioxidant activity. However, we recommend the conduct of adequately powered, high-quality RCTs with short- and long-term follow-up, evaluating relevant clinical outcomes to allow for making definitive recommendations.

G-1359

The effect of probiotics on COVID-19: A systematic review of observational studies

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Introduction: Coronavirus Disease 2019 (COVID-19) is a pandemic disease caused by a new coronavirus. Gut most infected people with COVID-19 will develop mild to moderate gastrointestinal (GI) symptoms such as diarrhea, vomiting, and stomachache, which are caused by impairment in gut microbiota. Probiotics are live microorganisms that they provide health benefits when consumed, generally by improving or restoring the gut microbiota. No integrated analysis has been performed to summarize the effect of probiotics on the treatment of covid-19 patients to date. In this study, we aimed to systematically review the effects of probiotics on COVID-19.

Method & material: A literature search was conducted in PubMed, Scopus, Web of Sciences, and Google Scholar databases from inception to February 2023, to identify studies that investigated associations about the effect of probiotics on COVID-19. Two researchers independently checked titles and abstracts, evaluated full-text studies, extracted data, and appraised their quality using the Newcastle-Ottawa Scale (NOS).

Result: Eighteen studies were included in this review. Our study shows that among COVID-19 patients, particularly in moderate to severe cases, the gut and lung microbiota was different compared to healthy individuals. The probiotics significantly affects the host insusceptible reaction, and on invulnerable responses at close by mucosal locales. In addition, the severity, and viral load of COVID-19 disease would probably also be influenced by the gut and lung microbiota's composition.

Conclusion: Our study concludes that there was a significant difference in the composition of gut microbiota in COVID-19 patients compared to the general healthy individuals, with an increase in opportunistic pathogens. Further, research is needed to investigate the probable bidirectional association of COVID-19 and human microbiome.

G-1360

The Effect of Thymoquinone (TQ) on Alzheimer's Disease: A systematic review: A Systematic review

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Introduction: Alzheimer's disease (AD) is the most common form of dementia among older persons. Thymoquinone (TQ), a biologically active ingredient of Nigella sativa, has anti-inflammatory, antioxidative, and neuroprotective properties. It has been documented in several studies that TQ has a wide range of protective activities and many neuropharmacological attributes Amyloid beta (Aβ) is the major role player peptide in the progression of Alzheimer's disease (AD). Therefore, it could be a good candidate in the recovery of AD pathology. The aim of this systematic review study was to investigate the effects of TQ on Aβ in Alzheimer's disease, reported in randomized controlled trials (RCTs).

Method & material: A literature search was conducted in PubMed, Scopus, Web of Sciences, and Google Scholar databases from inception to June 2023, to identify studies that investigated associations about the effect of TQ on Alzheimer's disease. Two researchers independently checked titles and abstracts, evaluated full-text studies, extracted data, and appraised their quality using the Cochrane collaboration's tool.

Result: In total, nine trials between 896 studies were included in the meta-analysis. In the four studies obtained results showed that Aβ caused cell death and apoptosis, which was efficiently attenuated by the co-treatment of TQ. Two studies suggested that TQ could represent an effective strategy against AD due to the balancing of oxidative processes and the binding to specific intracellular targets, and three studies did not report a significant relation between TQ and AD.

Conclusion: TQ could represent an effective strategy against AD due to the balancing of oxidative processes and the binding to specific intracellular targets. However, we recommend the conduct of adequately powered, high-quality RCTs with short- and long-term follow-up, evaluating relevant clinical outcomes to allow for making definitive recommendations.

G-1361

The Effect of Vitamin D on the immune system in Patients with HPV: A systematic review

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Introduction: Human papillomavirus (HPV) is one of the most common sexually transmitted viruses in the world. a portion of HPV infections become persistent, leading to diseases but the majority of HPV infections are spontaneously cleared by the natural immune response. Vitamin D seems to support the immune system by possibly strengthening innate and adaptive immune responses and has been found to be protective against acute respiratory infections and cervicovaginal HPV infections among females. Previous studies lack consistent conclusions as to whether Vitamin D deficiency is actually linked to HPV susceptibility as claimed. This systematic review aimed to evaluate vitamin D roles in the prevalence, acquisition, or clearance of HPV.

Method & material: This systematic review aimed to evaluate the role of vitamin D in patients with HPV. A systematic search was performed in PubMed, Scopus, Google Scholar, Cochrane, and Science Direct databases until June 2023. All Interventional and human studies which investigated the effects of vitamin D on HPV condition susceptibility were included in our study. Two researchers independently checked titles and abstracts, evaluated full-text studies, extracted data, and appraised their quality using the Cochrane collaboration's tool.

Result: All clinical trials that assessed vitamin D's effect on patients with HPV were included. Finally, only 7 out of 360 articles met the required criteria for further analysis. Three studies provided no evidence of an association between low 25(OH) D levels and increased HPV prevalence, acquisition, or clearance. Three studies showed a positive association between 25(OH) D and HPV. And also a study showed that Higher levels of 24,25(OH)2D3, was positively associated with HPV.

Conclusion: Acceptable level of vitamin D can be a good therapeutic way for improving the immune system against HPV prevalence, acquisition, or clearance. However, we recommend the conduct of adequately powered, high-quality RCTs with short- and long-term follow-up, evaluating relevant clinical outcomes to allow for making definitive recommendations.

G-1362

Investigating the predicting role of financial literacy and financial satisfaction in the quality of life of retired elderly people in Qazvin city

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Introduction: The world's population is rapidly aging, so paying attention to the quality of life of the elderly is of great importance. Financial satisfaction is one of the important components of quality of life. Therefore, the present study was conducted with the aim of determining the predictive role of financial literacy and financial satisfaction in the quality of life of the retired elderly in Qazvin city.

Method & material: This cross-sectional descriptive study was conducted on 270 retired seniors in 2019. The samples were randomly selected from 8 retirement centers in Qazvin city. For this purpose, the list of eligible seniors in each center was identified through electronic files and a number of files were randomly selected. The data was collected using a checklist of demographic characteristics, quality of life questionnaires for the elderly, financial literacy and financial satisfaction. Data analysis was done using SPSS software version 24 and using descriptive tests, multivariate skewness, Pearson and Spearman regression models.

Result: The average age of the elderly participants in the study was 65.17 ± 4.57 years. Most of the participants in this study were male (166 people, 61.9%) and married (245 people, 90.7%). The financial literacy of the elderly was 51.60 out of 100, financial satisfaction was 35.11 out of 100, and their quality of life was average (63.89 out of 100). The results of the regression model showed a significant relationship between financial literacy and quality of life (p=0.006, b=0.17), financial satisfaction and quality of life (p=0.001, b=0.25) and financial literacy (b=0.25). showed p=0.25, b=0.25.

Conclusion: The results of the present study showed that financial literacy has a positive relationship with the quality of life of retired seniors with the mediating role of financial satisfaction. Therefore, policy makers are suggested to pay attention to financial education before retirement in order to improve financial literacy during the retirement period.

G-1363

AlphaFold using artificial intelligence accelerate curing hepatocellular carcinoma

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Introduction: The use of artificial intelligence (AI) in healthcare has brought about a great revolution. In medicine, AI has been used for various applications, including diagnosis, treatment, and drug discovery and development. Alphafold is a version of the neural network that is a novel machine learning approach that incorporates physical and biological knowledge of protein structure into the design of deep learning algorithms using multi-sequence alignment. AlphaFold is a software package that can predict the structure of a protein based on its amino acid sequence. Proteins' spatial organization determines their effectiveness. One of the most common human diseases in today's society is cancer. The most commonly found cancers are liver-based forms called hepatocellular carcinoma. There are effective treatment options for this illness without the use of artificial intelligence technology, such as the combination of Atezolizumab and Bevacizumab, immunotherapy, and immune checkpoint inhibitors, although these may entail a higher cost to society.

Method & material: Searches were performed using three databases: PubMed, Google Scholar, and Scopus. The strategy for literature search was represented by ((hepatocellular carcinoma) AND (artificial intelligence)) .Also, words related to diagnosis and treatment of liver cancer were searched at the title and abstract levels. Among 71 eligible articles, 27 articles were included as original articles for the study after considering the inclusion and exclusion criteria. Articles not focused on the desired topic were filtered out.

Result: The role of structural data is critical in determining the potency of drugs to specific protein targets and in the design of small-molecule drugs that can effectively bind to them. By conducting a comparative analysis of target proteins and similar proteins using AlphaFold models, it is possible to develop drugs with greater specificity, potentially reducing their toxic side effects.

Conclusion: AlphaFold is a testament to the power of machine learning and its potential to transform our understanding of the natural world and help to solve some problems. For instance, it measures protein engineering by predicting changes in proteins and designs arbitrary protein structures by combining protein design methods. AI has the potential to improve the efficiency and accuracy of drug delivery systems, leading to better treatment outcomes for patients.

G-1365

Evaluating the association between nutrition and nutrient composition with dental caries: a systematic review

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Introduction: In addition to the costly burden on health care systems, oral and dental health problems have a significant impact on people's self-esteem, ability to eat, health and quality of life. Tooth decay is caused by the demineralization of the tooth structure and occurs when bacteria metabolize the consumed sugars and produce organic acids. Therefore, tooth decay is closely related to diet and the amount of sugar and carbohydrates, lack of vitamins and protein-energy malnutrition and fluoridation programs. Based on this, this systematic review examines the effects of diet and nutritional compounds on oral health conditions and dental caries.

Method & material: In this review, articles were extracted from ProQuest, Scopus, PubMed and Google scholar search engines. In order to obtain the desired articles from the English keywords including: diet, dental health, dental caries, oral health, nutrients, nutrition and their Persian equivalents and a combination of these keywords were used in the databases mentioned in the period of 2000-2023 and Finally, 20 studies were systematically reviewed.

Result: The findings of this study showed that the type of sugar and food consumed play an important role in causing caries. As animal studies report higher caries potential of sucrose than other forms of sugars such as fructose, maltose, lactose and glucose. It is interesting that the mixture of starch and sucrose shows more caries potential than sugars alone. There are controversial reports on the cariogenic potential of fruits, but to a lesser extent than sugar, enamel hypoplasia is related to nutritional deficiencies of vitamin A, vitamin D, and protein-energy malnutrition. Moderate nutritional deficiency of vitamin A, zinc, and iron may cause atrophy of the salivary glands, which can limit the protective abilities of saliva and, in combination with increased frequency of daily sugar intake, lead to caries progression. In general, a protein-rich diet is beneficial for the oral microbiota, as it helps neutralize plaque acidification and prevent tooth decay.

Conclusion: Several cross-sectional epidemiological studies show a significant relationship between dental caries and diet. However, it is possible that these cross-sectional studies do not provide a true cause-and-effect relationship between dental caries and diet, and more longitudinal studies that can examine changes in caries severity based on dietary changes are needed.

G-1367

Investigation of antibacterial and antioxidant properties of 12 species of native plants of Kurdistan province

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Introduction: Today, plant extracts and their components are known for their biological activities, especially antibacterial and antioxidant. Due to the biological diversity of plant species in Kurdistan province and the difference in the medicinal properties of plants depending on different geographical locations, the antibacterial and antioxidant properties of 12 species of plants native to this province were investigated. In this study, besides helping to return antibiotic sensitivity in pathogenic bacteria, they can also be used as natural preservatives.

Method & material: The present study is of Experimental type and after purchasing 12 plant species from herbal pharmacies in Kurdistan province, in order to determine their medicinal properties, it was first carried out using the aqueous extraction method, then by the diffusion method in the well, as well as the MIC and MBC method, which was performed using 96-well microplates, the antibacterial activity of the aqueous extracts against Gram-positive Staphylococcus aureus and Gram-negative Escherichia coli bacteria was determined, and the DPPH method was used to check the antioxidant properties. ANOVA and descriptive statistics were used to analyze the data. p0.05 was considered significant.

Result: Many of the studies plants had high antibacterial and antioxidant properties. So that Mentha longifolia L and Capillus Veneris Ladiantum plant extract had the highest and lowest effect against Staphylococcus aureus and Escherichia coli bacteria, respectively, and also plant extract of Capillus veneris ladiantum and Stachys lavandulifolia vahl They had the highest and lowest radical inhibition percentages.

Conclusion: Most of the studies plant extracts that were native to Kurdistan province showed significant antioxidant and antibacterial activities, which can be used in the discussion of medicinal plants and the preparation of various types of green disinfectants that have the least environmental effects.

G-1369

Comparison of the effect of surgical treatment versus conservative treatment in granulomatous mastitis in women of reproductive age

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Introduction: Granulomatous mastitis is a rare but benign disease. While the precise etiology of this disease remains elusive, it is widely recognized that inflammation arises in response to various factors, including trauma, hormonal fluctuations, metabolic processes, autoimmune disorders, and infections. Due to the scarcity of comprehensive data and controlled studies, there are disagreements in the way that patients with this disease get treatments. In western industrialized nations, the standard approach initiates with antibiotics and corticosteroids, followed by ongoing steroid administration. Surgical intervention becomes a consideration if symptoms persist, while the potential utility of immunotherapy drugs remains unresolved. Further data acquisition is essential to optimize treatment approaches.

Method & material: The present study is a longitudinal cohort study. The records of all patients diagnosed with idiopathic granulomatous mastitis (IGM) via histopathology, who attended the surgical clinic of Isfahan Hospital and selected centers were meticulously documented from March 21, 2019 to March 20, 2022. A total of 96 female patients with granulomatous mastitis were categorized into two primary treatment groups: surgical and conservative, further divided into five subgroups. These subgroups encompassed surgical removal (25 patients), corticosteroid usage (34 patients), antibiotic usage and drainage (14 patients), surgery combined with corticosteroid usage (15 patients), and surgery combined with antibiotic usage and drainage (8 patients). In all groups, following recovery and discontinuation of treatment, patients were examined every two to three months. Subsequently, they underwent clinical and radiological examinations (sonography) every 6 months to assess symptoms of recurrence, including edema, erythema, inflammatory mass, fistula, and secretions. Process and outcomes were carefully analyzed.

Result: Recovery was observed in 24 patients from the first subgroup, 30 patients from the second subgroup, 12 patients from the third subgroup, 14 patients from the fourth subgroup, and 7 patients from the fifth subgroup. Statistical analysis revealed no significant correlation between the type of treatment and recovery (P-value: 0.791). However, a statistically significant inverse relationship emerged between patient age and disease recurrence (P-value: 0.012), as well as between age and recovery (P-value: 0.011).

Conclusion: This study suggests that there is no discernible distinction between surgical and conservative treatment modalities for granulomatous mastitis. Furthermore, given the influence of age on disease recurrence and recovery, early detection and intervention in younger patients hold substantial clinical importance.

G-1370

In vitro effect of fluoxetine on sperm quality and mitochondrial membrane potential of human sperm

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Introduction: Depression is a common mental disorder that affects millions of people every year. Fluoxetine is a potent antidepressant compound that has high clinical use due to its safety and efficacy. Fluoxetine is a selective serotonin reuptake inhibitor and modulates the synaptic serotonin concentration in the brain. However, based on past studies, fluoxetine leads to a decrease in survival in various cells such as ovarian epithelial and hippocampus cells through increasing oxidative stress. Since many men at reproductive age use fluoxetine to treat their depression, it is necessary to investigate its effect on sperm cell quality. The aim of this study is to evaluate the effect of fluoxetine on mitochondrial membrane potential (MMP), motility, viability and morphology of human sperm in vitro.

Method & material: Semen samples of 30 normal fertile individuals were collected and each sample was divided into three groups: fresh, control (without treatment and 1 hour incubation) and fluoxetine (treated with 5 µM fluoxetine and 1 hour incubation). The parameters of motility (total, progressive, non-progressive), viability, morphology, MMP and ROS level in sperm were evaluated. Data were analyzed using repeated measures analysis and the average difference of the samples was considered significant at $p \leq 0.05$.

Result: The mean percentage of total motility, progressive motility, viability, normal morphology and MMP of sperm showed a significant decrease, while the mean percentage of non-progressive mobility and ROS level increased significantly in the fluoxetine group compared to the fresh and control groups ($p < 0.001$).

Conclusion: Our study showed that fluoxetine decreases the average percentage of MMP in sperm by increasing the level of ROS, which leads to a decrease in sperm quality, disturbing men's reproductive health.

G-1371

In vitro effect of N-acetylcysteine on motility, DNA integrity and chromatin integrity of human sperm

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Introduction: One of the important stages of assisted reproductive techniques is sperm processing, which takes an hour on average. During this stage, the sperm cell is separated from other components of the semen and is ready for injection. Several exogenous factors during sperm processing can induce oxidative stress in sperm cells. Although the antioxidant defense system is active in semen, its activity is limited due to the low amount of sperm cytoplasm, so it is suggested to use different antioxidant compounds to reduce oxidative stress during sperm processing. One of the strong antioxidant compounds is N-Acetylcysteine (NAC), which contains a thiol group and is able to remove free radicals and also protect sperm. Considering that some normal and fertile men may need to benefit from ART, therefore the aim of this study is to investigate the effect of NAC on motility, DNA integrity and chromatin integrity of normal human sperm.

Method & material: Normal sperm samples of 30 normal and fertile men were collected. Then each sample was divided into three groups of fresh, control (without treatment after 1 hour of incubation) and NAC (treated with 50 µM NAC antioxidant after 1 hour of incubation). The mobility of the samples was measured by light microscopy. Also, DNA fragmentation and chromatin integrity were evaluated using acridine orange and Chromomycin A3 staining, respectively. ROS level was measured by chemiluminescence technique. The data was analyzed using repeated measures analysis and the average difference of the samples was considered significant at the level ($p \leq 0.05$).

Result: A significant increase in the mean percentage of total and progressive sperm motility was observed in the NAC group compared to the fresh and control groups ($p<0.001$). Also, in the NAC group, a significant increase in the mean percentage of chromatin integrity was observed compared to the control group ($p<0.001$). The mean percentage of non-progressive motility and sperm DNA fragmentation and sperm ROS level significantly reduced in the NAC compared to the control group ($p<0.01$).

Conclusion: Our results showed that NAC can lead to the strengthening of progressive and total motility parameters, DNA integrity and chromatin integrity by reducing ROS levels and is able to protect sperm against oxidative stress damage.

G-1372

Catastrophe prevalence and causes of medical errors in Iran: a systematic review and meta-analysis

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Introduction: Healthcare workers may make mistakes during medical procedures that can initially threaten the patient's health and safety and prolong their hospital stay. These errors, known as medical errors, have always been a challenge for healthcare systems. Therefore, this study was designed to review the prevalence of medical errors and the factors contributing to them in Iran.

Method & material: In this systematic review and meta-analysis, articles were searched in Google Scholar, PubMed, Science Direct, Scopus, MagIran, IranMedex, and SID databases using a combination of keywords. Studies that reported the prevalence of medical errors among healthcare workers in Iran until the end of 2022 were included in this study. The quality of the included studies was assessed using the critical appraisal checklist developed by the Joanna Briggs Institute (JBI), which is a standardized tool for evaluating the methodological quality and risk of bias in studies. Data analysis was performed using STATA software version 17.

Result: A total of 51 studies were included in the analysis. The analysis showed that the prevalence of medical errors among healthcare workers in Iran was 58% (95% CI: 49, 68; I2 = 99.7%). The majority of medical errors were medication errors, accounting for 64% (95% CI: 47, 81; I2 = 99.6%). The reporting rate of medical errors among healthcare workers in Iran was 36% (95% CI: 24, 48; I2 = 96.4%). Moreover, the prevalence of medical errors based on the quality of the articles was 47% (95% CI: 27, 68; I2 = 99.7%), and among populations with a sample size of more than 300, it was 24% (95% CI: 16, 32; I2 = 95.8%).

Conclusion: Given the high prevalence of medical errors in Iran and the limited reporting of such cases, managers should identify the effective factors causing these errors and support employees who make mistakes to create a culture of reporting medical errors.

G-1373

The Effects of Exosome Therapy in Animal Model of Spinal Cord Injury. A Systematic Review and Meta-Analysis

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Introduction: A spinal cord injury involves damage to the spinal cord that causes temporary or permanent changes in movement, and senses. Exosomes have opened a new way to repair nervous system diseases. We used systematic review, and meta-analysis to investigate the effect of exosomes on the locomotor function of animal models of spinal cord injury

Method & material: In this study, a search was made in PubMed, Scopus, and Web of Science databases from January 1, 2000, to January 1, 2023. Articles that used exosomes for traumatic animal models of the spinal cord were selected. The mean and standard error of behavioral Basso–Beattie–Bresnahan (BBB) TEST data were subjected to meta-analysis. Two authors independently screened the articles based on inclusion and exclusion criteria. All statistical analyses were conducted using CMA software

Result: Significant improvement was observed in the overall pooled standardized mean difference (SMD) between animals treated with exosomes compare to control (behavioral Basso–Beattie–Bresnahan (BBB) TEST 2.8 (95% confidence interval [CI] 3.4 to 4.5; P 0.001)

Conclusion: Exosome therapy Improves locomotor impairment in the traumatic spinal cord injury model

G-1376

Diabetes insipidus early complication of Covid-19 infection

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Introduction: SARS-COV-2 is responsible for the coronavirus disease 2019 (Covid-19). Systemic involvement in this disease is due to the expression of ACE2, which is expressed by a number of endocrine organs, such as the pancreas and thyroid and other organs. During the treatment of severe Covid-19 patients, we observed the frequent occurrence of treatment-resistant hypernatremia.

Method & material: A 41-year man with no medical history presented with complaints of fever, dry cough, craving for cold water, and loss of consciousness. Chest CT tomography, a 4 mm fissure nodule and a paracardiac atelectatic band on the left side, and aspiration pneumonia and bronchiectasis were evident. Broad-spectrum antibiotics and tuberculosis therapy were initiated. Due to the decreased level of consciousness and adipsic hypernatremia, MRI of the brain was performed, and signal changes were seen on both sides of the hypothalamus region, indicating an inflammatory process. He had a sudden onset of polyuria for several days, a 24-h urine collection of 7 liters, and serum and urine osmolality of 318mOsm/kg and 17mOsm/kg, respectively.

Result: Diabetes insipidus was diagnosed based on the available evidence and elimination of the most common causes of hypophysitis. This synchronicity strongly suggested that the diabetes insipidus in our patient was due to hypophysitis caused by covid-19. After 2 weeks, the treatment was continued, the Covid-19 symptoms improved, and electrolyte levels and urinary output were within normal limits.

Conclusion: To better determine complications after Covid-19 such as diabetes insipidus, clinical course, and recovery, more studies with long-term follow-up of recovered Covid-19 patients are needed.

G-1377

Effect of environmental stress and cryoprotectant on survival enhancement of freeze-dried probiotic Lactobacillus plantarum

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Introduction: The probiotics played important role in relieving lactose intolerance, improving sleeping, alleviating constipation, strengthening the immune system, and preventing virus infection. The survivability of the probiotic could affected by different environmental conditions during the production, storage and etc. The aim of this study was study the effect of low pH stress effect and sucrose as cryoprotectant for enhancement of freeze-dried probiotic Lactobacillus plantarum (L. plantarum).

Method & material: The L. plantarum (savis biotech co) was cultured twice in MRS broth with different pH (4.5, 5, 5.5, 6 and 6.5) were prepared by using different concentration of lactic acid. After incubation the sucrose was added in each media with different concentrations (0, 1%, 5% and 10%). Finally the probiotic cell was harvested and lyophilized for 24 h. The freeze dried samples were sealed in 5 ml airtight vials. Storage was performed at 4 °C (standard refrigeration temperature). At equal time intervals of 4 weeks for a total of 3 months, a vial representing each experimental system was taken, rehydrated to the original volume, and analyzed to determine the impact of different treatments on the cells survivability during the storage period.

Result: Results demonstrated that the probiotics showed higher survivability by lactic acid stress without adding sucrose. Also, survivability of L. plantarum cells were enhanced by adding sucrose during storage. The highest survivability of the cell was achieved in pH:5.5 and 10% sucrose.

Conclusion: From an overall perspective, it is readily apparent that the combination of pH stress and Sucrose significantly improves the survivability of probiotics.

G-1378

Comparison of the effect of whistling and using a vibrating wasp during blood sampling on children pain and fear

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Introduction: Venous blood collection for children is a potentially painful and very frightening experience. If the child is not calm, the venous blood collection process will be more difficult and the risk of accidental injury will increase. Whistling and focusing on breathing is another distraction technique. The present study was conducted to compare the effect of whistling and using a vibrating wasp during blood sampling on the pain and fear of children in the emergency department.

Method & material: This study was conducted as a randomized clinical trial with IRCT code 20211211053351N1, three groups, on 120 children referred to the emergency department of Najaf Hospital in 1400. Demographic information questionnaire, Wang Baker picture scale, and children's fear scale were CMFS. At the beginning and end of the research, bees were randomly placed in three groups of vibration, whistling, and control bees, and their pain and fear levels were checked before and after blood sampling in the three groups. The data was analyzed using spss software using descriptive statistics (mean and standard deviation) and one-way analysis of variance (ANOVA) until the mean difference between the groups was determined at a significance level of 95%.

Result: During venipuncture, the mean and standard deviation of the pain score of the studied children in the vibrating bee group was 1.59 ± 1.85, in the whistling group was 85.835 ± 2.1, and in the control group was 2.20 ± 3.77. The one-way analysis of the variance test showed this difference to be significant. (P0/001) the mean and standard deviation of the child's fear score during the pain vein extraction of the studied children in the vibrating bee group was 4.40 ± 2.99, the whistling group was 4.95 ± 5.45, and the control was 19.77 ± 8.85. One-way analysis of variance showed this difference to be significant (P0.001).

Conclusion: The data showed that the intensity of self-reported pain and the level of fear of the child during vein extraction in the two groups of bee vibration with cold and whistling decreased compared to the control group. Therefore, this tool can be used at the bedside to improve nursing services increase patient satisfaction, and then increase children's cooperation in nursing procedures.

G-1380

Investigating awareness, attitude and desire to be vaccinated against covid-19 among the people of Mashhad

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Introduction: The power of contagion and high mortality of the disease puts a lot of pressure on health systems, patients, families, and people. By examining people's awareness and attitude, it is possible to predict their behavior regarding Covid-19. According to the mentioned materials, the present study was conducted to investigate the awareness, attitude, and willingness to be vaccinated against COVID-19 among the people of Mashhad.

Method & material: This cross-sectional descriptive study was conducted in the winter of 1400 on 2500 people over 18 years old living in Mashhad. Data collection was done with a 39-question questionnaire to determine awareness, attitude, and willingness to carry out the covid-19 vaccination. Data analysis was done with SPSS.16 software and independent t-tests, Chi-square.

Result: Regarding the knowledge and attitude of the research units about the COVID-19 vaccine, 55.24% believed that they would not be infected with the disease after the injection of the vaccine. 54.64% evaluated the effectiveness of current COVID-19 vaccines as weak. 70.84% stated that after receiving the vaccine, there is no need to use a mask or observe social distancing. 42.24% believed that they might get a coronavirus infection by injecting the vaccine. 36.52% considered the vaccine to be the best way to prevent corona. Regarding the doubts and willingness of the researched units regarding vaccination, 51.44% stated that they would refrain from re-injection of the vaccine if needed.

Conclusion: The findings showed a positive correlation between the level of awareness and people's attitude and desire towards vaccination and preventive behaviors against COVID-19. As the level of awareness increases, the desire for vaccination increases. Therefore, it is suggested to develop a program to increase the level of awareness regarding preventive behaviors.

G-1382

Application of Telemedicine in post-discharge care of burn patients: A Systematic Review

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Introduction: The use of telemedicine technology provides access to specialists and health services in case of limitations for patients. On the other hand, after treatment in the burn department, regular visits by specialists are necessary for the patient. Considering the importance of post-discharge care, the follow-up of these patients is of double importance. Therefore, the purpose of this study is to investigate the applications of telemedicine in the follow-up and post-discharge care of burn patients.

Method & material: This study is a systematic review that was conducted in 2023 based on PRISMA guidelines. Databases such as PubMed, Scopus, Science direct and Google Scholar search engine were searched with the keywords Telemedicine , Burn , follow-up and their equivalent words in English without time limit. All English-language studies related to the purpose of the study were included. Letters to the editor and conference abstracts were excluded from this study. The included studies were independently evaluated by two researchers and were used after separation, review and final approval.

Result: 27 studies out of 351 studies were included in this systematic review. Telemedicine in various fields related to the post-discharge care of burn patients, including psychological care(26%), adherence to the rehabilitation care program(22%), receiving continuous advice from doctors(41%) and expanding Educational resources(19%) were used. Benefits of telemedicine include access to medical information to improve care decisions, reduction of unnecessary patient transfers, and improved patient access to specialists regardless of distance. In addition, telemedicine in this field helps the treatment team to communicate more effectively. It also improves the skills and experience of general practitioners. less exposure of the patient to the risk of contaminated environments is also one of its advantages. In some studies, it was noted that although remote burn care consultation was cost-effective for the patient, it was more time-consuming for the therapists.

Conclusion: Many burn treatment units serve large geographical areas. On the other hand, due to the prevalence of poverty and deprivation among burn patients, travel costs, distance from specialized centers, time constraints, and patient negligence are the main reasons for reducing the follow-up of burn patients. This is while the use of Telemedicine can save travel time and costs, save hospital resources and increase efficiency. Although the resistance of some doctors and legal challenges are still the main obstacles to the use of Telemedicine in burn patients, the implementation of this technology for this group of patients is considered a potential, efficient and cost-effective solution.

G-1385

Factors Associated with Postpartum Depression in Mothers at Shariati and Gharazi Hospitals in Isfahan

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Introduction: Postpartum depression is a debilitating condition that significantly impacts a person's social relationships and their ability to care for a baby. Early recognition of this disorder, along with an understanding of its related factors, can be viewed as both preventive and therapeutic measures. The ultimate result is improved health for both the mother and child, benefiting not only the family but also society at large. Therefore, this study was conducted to investigate postpartum depression and its connection with certain neonatal events.

Method & material: This research is a cross-sectional study conducted on women who either gave birth or had a baby hospitalized at Gharazi or Shariati Hospitals in Isfahan from October 2021 to June 2022. A total of 358 mothers were included in the study. For all participants, the EPDS questionnaire (Edinburgh Postpartum Depression Questionnaire, which consists of 30 points with higher scores indicating more severe depression) and a mother-child information form were completed. Data were analyzed using SPSS software, including descriptive tests and the Chi-square statistical test.

Result: In this study, according to the scoring system of the EPDS questionnaire, 194 mothers (54.2%) scored below 13, while 164 mothers (45.8%) scored 13 or higher. A direct and significant relationship was found between maternal depression and education level (P-value: 0.012). Additionally, there was a direct and significant relationship observed between unwanted pregnancies (P-value: 0.001), the birth of a female baby (P-value: 0.023), infant hospitalization in the NICU (neonatal intensive care unit) (P-value: 0.001), congenital abnormalities (P-value: 0.012), and postpartum depression.

In the present study, a direct and significant relationship was identified between the use of phototherapy devices for treating jaundice and maternal depression (P-value: 0.033). However, no significant relationship was found between infant jaundice and postpartum depression (P-value: 0.07).

Conclusion: Based on the statistical data and an examination of each of the aforementioned factors in postpartum depression, it is recommended that preventive measures be taken for mothers at higher risk. Specifically, mothers with a higher level of education, those who have experienced unwanted pregnancies, or those expecting a baby girl should receive increased attention and support before childbirth to prevent the onset of depression. Furthermore, mothers whose infants require NICU admission, whether for phototherapy or other reasons, should also be prioritized for additional attention and care.

G-1386

Investigating the relationship between job satisfaction and moral distress with mental well-being in the employees of the Covid department of Al-Zahra Hospital in Isfahan in 1401

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Introduction: Covid-19 is an emerging viral disease that has made healthcare workers on the frontline of the response face challenges that threaten their well-being and job satisfaction. The purpose of this study is to investigate the relationship between job satisfaction and moral distress with mental well-being in the employees of the Covid department of Al-Zahra Hospital in Isfahan.

Method & material: This cross-sectional study was conducted on 144 employees of the Covid department of Al-Zahra Hospital in Isfahan. Study subjects, with the Quoto-random sampling method, in 8 work categories, including nurses (74 people), paramedics (24 people), administrative staff (8 people), operating room technicians (8 people), anesthesia technicians (6 people), midwives (6 people), services (18 people) were included in the study. The standard questionnaires of Spector's job satisfaction, Corelli's moral distress and WHO's well-being scale and the researcher's checklist including demographic variables and job factors were completed by the participants with informed consent by self-report method. Data were analyzed using SPSS-26 software and statistical tests. The significance level in this study was (P 0.050).

Result: Job satisfaction and moral distress have a positive and significant correlation with psychological well-being variable (r=0.371) (r=0.563). The overall job satisfaction score was equal to 98.1 ± 8.3. Based on the score of the questionnaire, 78% of the employees were dissatisfied with their jobs and 22% were satisfied, and the level of satisfaction among nurses and paramedics was significantly lower than administrative employees (P 0.050). The overall moral distress score was 140.5 ± 18.3 and the psychological well-being score was 15.2 ± 1.3 less than the normal level. The overall score of moral distress was not significantly different from the work shift of the research subjects, their work experience and their income, but a significant relationship was seen between the type of employment and the moral distress score (0.0065).

Conclusion: Considering the effective role of the personnel of the Covid department and their presence in the front line of the fight against the disease, it is necessary to pay more attention and take special measures for the job satisfaction and psychological well-being of the personnel. Also, considering the need for specific measures to reduce moral distress in special and acute conditions. Finally, considering the significant relationship between employment status and moral distress, it is necessary for hospital managers to plan effective plans for changing the employment relationship from temporary to permanent.

G-1387

Examination of oral manifestations in patients with type 2 diabetes mellitus with peripheral neuropathy and without peripheral neuropathy

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Introduction: Type 2 diabetes mellitusis is due to resistance to insulin and a relative lack of insulin. One of the complications of type 2 diabetes is peripheral neuropathy which causes gloves stocking disorder and also muscle weakness and numbness in the extremities. Diabetes mellitus also has oral manifestations such as changes in saliva, Dry mouth, and burning mouth syndrome. Therefore, This study was conducted with the aim of better understanding the oral manifestations of peripheral neuropathy and the relationship between them in patients with type 2 diabetes.

Method & material: A case-control study was conducted between June and January 2019. 120 patients aged 40 to 60 years were included and separated into three forty-people groups: normal controls, people with type 2 diabetes mellitus with peripheral neuropathy, and people with diabetes mellitus type 2 without peripheral neuropathy. Patients who did not intend to cooperate and consent to participate were excluded from the study. The initial selection of patients was done by an endocrinologist, and new FPG and Hb1Ac tests were performed for those referred with type 2 diabetes mellitus, an electromyography test (EMG-NCV) was performed with a referral to a neurologist, the cases with probable neuropathy and without neuropathy were identified. finally, the checklist which included questions related to changes in the sense of taste, pain, burning in the mouth, and sensory disorders (paraesthesia, tingling, and numbness) was completed. The data was statistically analyzed using SPSS.25 software, chi-square, and T-test statistical.

Result: The gender distribution of patients in all three groups was equal and included 50% men and women. Periodontal problems (p=0.001) and candidiasis (p=0.005) were shown more in diabetic people than in the control group. The 5th and 7th cranial nerve reflexes did not show any significant difference between the groups. The change in the sense of taste and numbness in the diabetic group with neuropathy was significantly higher than the other two groups(p=0.03). Diabetic patients with neuropathy had more dry mouth (p=0.002) and the possibility of parotid gland disorder was higher in them (p=0.01), they were more likely to experience tingling (p=0.03), Also, diabetic patients with peripheral neuropathy were more likely to have flushes (p=0.02) and this rate decreased with increasing age (p=0.03).

Conclusion: Diabetes mellitus is accompanied by changes in the oral mucosa that can significantly affect the quality of life. via diagnosing the prevalence of these oral appearances in diabetic patients, appropriate interventions can be designed to eliminate the oral symptoms.

G-1388

The effect of Alpha–Lipoic Acid on the inflammation and sperm chromatin during cryopreservation in the asthenozoospermic men

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Introduction: Asthenozoospermia, characterized by decreased mobility of sperm, is one of the most prevalent causes of male infertility. Semen cryopreservation, used commonly in Assisted Reproductive Technology, is accompanied with disturbed sperm function. Most of the side effects of cryopreservation are due to an increase in the level of reactive oxygen species (ROS) during freezing and thawing. Therefore, an effective strategy to reduce ROS levels and to maintain the quality of cryopreserved sperms could be adding an antioxidant to the cryopreservation medium. Alpha-lipoic acid (ALA) is described as a potent biological antioxidant and has the potential to regenerate other antioxidants such as vitamin C. ALA has both antioxidant and anti-inflammatory activities through scavenging ROS and inhibiting the release of pro-inflammatory cytokines. In this study, the effects of ALA on inflammation and sperm chromatin during cryopreservation in the asthenozoospermic patients were investigated.

Method & material: The present study was approved by the research ethics committee of Qom University (IR.QOM.REC.1399.019). 30 semen samples were collected from 30 asthenozoospermic infertile individuals (24-42 years old) who had referred to the infertility treatment center of Qom University Jihad in 2021. Each sample was divided equally into 3 groups: Control (fresh); Freeze, which treated with cryo-protectant alone; and Freeze+ ALA, which treated with cryo-protectant+ 0.5mM ALA solution. In the freezing groups, samples were cryopreserved with human sperm freezing medium by the rapid freezing method. In each sample, the DNA fragmentation, protamine deficiency and level of pro-inflammatory cytokine Tumor Necrosis Factor-alpha (TNF-α) were assessed through SDFA (Sperm DNA Fragmentation Assay) Kit, Chromomycin A3 (CMA3) staining and Human TNF-α Quantikine ELISA Kit respectively. Data were analyzed statistically using Repeated Measure Analysis method and Bonferroni post-hoc test.

Result: A significant increase in the mean sperm DNA fragmentation, protamine deficiency and TNF-α level was observed in the Freeze group compared to the Control group (p=0.000).whereas the mentioned parameters showed a significant decrease in the Freeze+ ALA group compared to the Freeze group (p=0.000).

Conclusion: The present study indicated that adding ALA to the cryopreservation medium can compensate for the adverse effects of freezing on the sperm of asthenozoospermic men by decreasing sperm DNA fragmentation, protamine deficiency and the level of TNF-α, leading to improved sperm chromatin quality.

G-1389

Ameliorative effect of Sildenafil Citrate on the sperm quality during cryopreservation in the asthenozoospermicc men

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Introduction: Asthenozoospermia, characterized by decreased sperm mobility, is one of the main indicators of male infertility. Due to the limited longevity of fresh sperm, cryopreservation can provide simultaneous recovery of the sperm and oocyte, but is accompanied with many damages to the cell. Adding an antioxidant to the cryopreservation medium can be an effective strategy to maintain the quality of cryopreserved sperms. Sildenafil Citrate (SC) has a wide range of applications in conditions such as male erectile dysfunction . In addition, the effect of SC in improving semen parameters in infertile men has also attracted the researchers' attention. In this study, the effects of SC as an antioxidant on the quality of sperm during cryopreservation in asthenozoospermic patients were investigated for the first time.

Method & material: This study was approved by the research ethics committee of Qom University (IR.QOM.REC.1399.019). 30 semen samples were collected from 30 asthenozoospermic individuals who had referred to the infertility treatment center of Qom University Jihad in 2021. Each sample was divided into 3 groups: Control (fresh); Freeze, (treated with cryo-protectant); and Freeze+ SC, (treated with cryo-protectant+ 0.67µM SC). Samples in the freezing groups were cryopreserved using rapid freezing method. In each sample, the sperm mitochondrial membrane potential (MMP), plasma membrane integrity, progressive and non-progressive motility, and various morphological abnormalities (head, tail, and mid piece) were assessed through rhodamine staining, Hypo-Osmotic Swelling Test (HOST), optical microscope and according to World Health Organization (WHO) guidelines, and Papanicolaou staining respectively. Data were analyzed statistically using Repeated Measure Analysis and Bonferroni post-hoc method.

Result: A significant decrease in the mean sperm progressive and non-progressive motility, plasma membrane integrity and MMP, and a significant increase in the mean sperm morphological abnormalities (head, tail and mid piece) was observed in the Freeze group compared to the Control group ($p=0.000$). All the mentioned parameters were significantly reversed in the Freeze+ SC group compared to the Freeze group ($p=0.000$).

Conclusion: Our findings showed that the addition of SC to the sperm freezing medium increases sperm motility, plasma membrane integrity and MMP, and also decreases various sperm morphological abnormalities. As a result, it reduces the adverse effects of freezing on the sperm of asthenozoospermic patients and improves the sperm quality.

G-1392

The effects of Nigella sativa on body composition: A systematic review and meta-analysis of controlled trials

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Introduction: Obesity is characterized by an abnormal balance between energy expenditure and intake. Herbal medicines have recently attracted much attention as therapy options. Because they are more widely available, less costly, and have fewer adverse effects than manufactured medications. Nigella sativa (N. sativa) is a medicinal herb with antioxidant and anti-inflammatory characteristics that belongs to the Ranunculaceae family. This study was done to systematically summarize the available studies that examined the effects of N. sativa supplementation on anthropometric indices among adults.

Method & material: We searched Web of Science, EMBASE, PubMed, Scopus, and Cochrane Library databases until December 2022 to identify relevant studies. All controlled clinical trials that examined the effect of N. sativa supplementation on anthropometric indices were included.

Result: Eventually, 32 studies that reported data of interest were entered for data analysis. We found a significant reduction in body weight (WMD: −1.17 Kg, 95% CI: −2.06, −0.28), body mass index (WMD: −0.41 kg/m2, 95% CI: −0.66, −0.16), waist circumference (WMD: −1.12 cm, 95% CI: −1.47, −0.51), and hip circumference (WMD = -1.61 cm, 95% CI: −3.06, −0.17) following supplementation with N. sativa.

Conclusion: Previous studies illustrated that N. sativa could: 1.reduce glucose absorption and production through the inhabitation of intestinal sodium-glucose co-transporter and gluconeogenesis 2.have anti-inflammatory effects due to thymoquinone 3.increase the glucose metabolism through the increased activity of peroxisome proliferator-activated receptor gamma (PPAR-Y) modulated the metabolism of lipid by a reduction in appetite and consequently energy intake. The results of this study suggest that there was an improvement in anthropometric indices after the use of N. sativa, whereas no changes were observed in waist-to-hip ratio.

G-1393

Effects of saffron on treatment for children and adolescents with attention–deficit/hyperactivity disorder (ADHD): A systematic review of randomized controlled trials

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Introduction: Attention deficit hyperactivity disorder (ADHD) is one of the most prevalent neurodevelopmental disorders worldwide. Psychostimulants are a part of the treatment of choice, but parents often hesitate to give them because of their adverse effects. Therefore, other medications, such as herbal medicine, should be investigated. One of the herbal medicines is saffron, which is both safe and helpful in the treatment of a wide range of mental problems. Saffron stimulates dopamine production and boosts activity and brain waves, which can decrease ADHD symptoms. In this study, we systematically reviewed the effects of saffron on treatment for children and adolescents with ADHD.

Method & material: Four databases, including Scopus, Web of Science, PubMed, and Science Direct were searched up to March 2023. Randomized controlled trials (RCTs) studies were selected to examine the effects of saffron on treatment for children and adolescents with ADHD. We used the Cochrane collaboration tool and two reviewers independently evaluated the risk of bias for each study.

Result: Finally, 6 RCTs with 331 participants were identified. Results revealed that intake of 20 –30 mg/d saffron significantly decreased symptoms in ADHD patients. Two studies showed that a combination of methylphenidate and saffron had better effects in the treatment of these patients compared to separate treatments.

Conclusion: This systematic review supports the positive effects of saffron on different ADHD symptoms. However, more controlled studies with longer treatment periods are necessary to confirm these findings.

G-1394

Investigating the Importance of Telenursing in the COVID-19 Pandemic

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Introduction: The widespread spread of the COVID-19 disease and the infection of many people in the world required long-term at-home treatment and care. As the main members of the healthcare providers, nurses played an important role in disease management and providing care during this pandemic by using telenursing. Therefore, the purpose of this study was to investigate the importance of telenursing in the COVID-19 pandemic.
Method & material: This study conducted a comprehensive search of electronic databases including ProQuest, Medline, Web of Science, Scopus, Google Scholar, and the national Persian language databases like Magiran and SID between 2020-2023. Target studies were searched using MeSH standardization and keyword combinations were identified using (AND/OR). Search terms included telenursing, COVID-19 pandemic, Coronavirus, and Nurse's Role. Inclusion criteria included articles related to telecare and focus on its role in nursing tasks, articles with abstracts and full text in English or Persian, and articles published in peer-reviewed journals. The exclusion criteria for articles included journal notes such as short articles of the letter to the editor, commentaries, conference abstracts, and dissertations. Finally, the inclusion/exclusion criteria were applied and 9 studies were included in this study, and data were extracted and classified.
Result: Despite the challenges, telenursing has been able to improve the health level and increase the quality of life of patients by creating a sense of security for patients through effective planning and implementation. This process is achieved by remote symptom management and continuous monitoring of client performance. Among the benefits of telenursing in this pandemic, we can mention the reduction of disease transmission, care costs, and continuity of care, emphasizing maintaining the patient's independence. Disadvantages of telenursing may include the challenges related to communication between patients and nurses, which leads to the lack of trust of patients and the inability to establish an appropriate therapeutic relationship. Telenursing can be used as an important key for preventive care, education and counseling, and health promotion at the community level using virtual networks, computers, and smartphones.
Conclusion: The experience of using telenursing to resolve care needs during the COVID-19 pandemic, and the validation of telenursing technologies highlights the need for greater attention and preparedness of the healthcare system to expand these capabilities, considering the increasing elderly population and the prevalence of chronic and infectious diseases.

G-1396

Joint regeneration in rheumatoid arthritis through immune-like hormones: a systematic study of myostatin

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Introduction: Myostatin is a pseudo-hormone whose increase in the elderly causes sarcopenia and its decrease causes muscle bulking. Recently, the whisper of its effect on other organs such as bones is also seen in studies. Aim In this review, we intend to investigate the relationship of this hormone in rheumatoid arthritis and answer the following research question based on the PICO (patient/population, intervention, comparison and outcomes) criteria. Can myostatin inhibition be effective in regenerating joints in rheumatoid arthritis.

Method & material: All the articles from 2018-2022 were extracted from Web of Science, PubMed and Scopus databases. The results were analyzed in the Cochrane database. A non-meta-analysis and comprehensive systematic review was written based on Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria and the principle of non-bias was respected. keywords base on Mesh base was: o Myostatin o Rheumatoid arthritis o Myostatin and Rheumatoid arthritis.

Result: The results show that myostatin plays a significant role in bone and joint reconstruction. Patients with RA show higher levels of serum myostatin compared to healthy individuals. Myostatin may increase TNF-α expression through intracellular signaling pathways for synovial fibroblasts in human RA. Myostatin is responsible for preventing bone recovery and is not limited to bones alone. In RA patients, joint mobility can be effectively restored through bone regeneration, while myostatin-induced cachexia and sarcopenia can limit muscle function.

Conclusion: Myostatin is important for skeletal muscle health in addition to bone health in RA. In rehabilitation, controlling myostatin should be considered to support joint regeneration and movement. Concentration on inflammatory pathways should also include myostatin, which may encourage us to prioritize controlling this substance in RA.

G-1398

Self Care Methods in Patients with Cardiac Arrhythmia

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Introduction: Heart diseases are the first cause of death in Iran and many countries. Cardiac arrhythmias (an irregular heartbeat) globally have a high accession and fatality and affect a quarter of the population over 40 years old. Patients are the first to be informed of the rhythm abnormality, leading to the necessity of increasing the patient's self-management. The use of technologies is increasing. Telemedicine, such as mobile health (mHealth) applications and heart monitoring devices, helps patients in self-care. With practical and innovative methods of these apps, self-care is supported by controlling behaviors, signs, and drugs and checking physiological factors such as heart rate.

Method & material: This review was performed in 2022. We reviewed and collected articles about the study's primary purpose without a time limit in the PubMed database, with Boolean operators (AND/OR) in Title/Abstract field, and Google Scholar search engine using MeSH keywords.

Result: New technologies are secure, cost-effective, and associated with patients and providers' high consent. High-quality mHealth apps have great potential to increase the screening and monitoring of arrhythmias to abridge their sequelae and boost positive lifestyle alterations. However, we found that most mobile apps do not have enough scientific credibility, and there is much room for developing mobile apps' quality. These are some helpful mHealth apps for arrhythmias: Kardia app, MAF app, PULSE-SMART, and RITMIA. Vanquishing patients' unwillingness to use technologies and achieving interoperability of mHealth applications with other systems are two significant challenges in using mHealth apps for self-management. An omnipresent self-management method is pulse self-palpation, independent of technologies for identifying irregular heartbeat.

Conclusion: Based on the study, self-care is a learnable method if basic instruction is given to patients. Likewise, Training self-care tips to the patient and their effectiveness in improving the course of the disease increases his knowledge and interest in doing correct behavior in dealing with the disease. Self-management leads to correcting the way of patients' lives and refining their physical and mental health levels, which can increase their time and quality of life. We suggest more studies be conducted in this field to ascertain the effect of this interposition in reducing various outcomes caused by cardiac arrhythmias and ameliorating fundamental aspects of life.

G-1399

The study quality of sleep among elderly In Jahrom

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Introduction: Aging is a period of life that begins at the age of sixty. Sleep disorders have a high prevalence in the elderly community. Sleep is one of the basic human needs and sleep disorders cause in psychological problems and so, reduce personal efficiency. Therefore, studying the sleep quality in the elderly is very important because it leads to recognizing the factors that influence positively the sleep quality of elders.

Method & material: This study was a cross-sectional descriptive study that was performed on a total of 160 elderly people in Jahrom in 2018. Data collection tools included demographic information and the Petersburg Sleep Quality Questionnaire. The questionnaire had 17 items and 7 subscales, and a total score higher than 5 in the whole questionnaire meant poor sleep quality. After research approval and obtaining permission from the University Ethics Committee (IR.JUMS.REC.1395.082), the researcher introduced himself to the research units and briefly stated the purpose of the research. After collecting data, data were analyzed using descriptive statistics using spss16 statistical software.

Result: The results showed that 54% of the participants in the study were male and the mean age of the participants was 62.96 ± 2.5. The average score of sleep quality was 6.53 3.5 which showed that the majority of the elderly do not have good sleep quality and the lowest score was allocated to the subscale of sleep efficiency.

Conclusion: The sleep quality of the majority of the elderly is reported at a low level, so it is recommended that the factors related to improving sleep quality in the elderly be further investigated.

G-1400

The study of the curative effect of adipose tissue derived mesenchymal stem cells- conditioned medium on sperm DNA maturation and integrity and testicular meiosis in cyclophosphamide-treated mice

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Introduction: Cyclophosphamide, which is a highly effective anticancer and immunosuppressive agent in organ transplantation, causes toxic side-effects in multiple organ systems including the testes. In Cyclophosphamide treated rodent, a decrease in sperm quality was associated with increased DNA damage and decreased chromatin quality. Sperm DNA fragmentation and maturation directly interferes with reproductive efficiency. In recent years, much attention has focused on the mesenchymal stem cells (MSCs) and their Conditioned medium for the potential effects on sexual function. In this study, the therapeutic effect of conditioned medium (CM) derived from fat tissue stem cells on reproductive toxicity induced by cyclophosphamide was investigated in mice.

Method & material: In this experimental study, 18 adult male mice were randomly divided into 3 groups: including normal (Without treatment), CYP (received 200 mg/kg of cyclophosphamide, IP injection) and CYP+CM (received 100 µl concentrated conditioned medium after cyclophosphamide injection, IV injection) groups. After 35 days under deep anesthesia left testis was removed and used to test MDA and total TCA levels and also the expression of mRNA in meiosis gene (Scp3). The cauda epididymis was placed in the Ham's F10 medium and released spermatozoa were used in order to analyze DNA maturation and fragmentation by aniline blue (AB) and acridine orange (AO) methods respectively.

Result: A significant increase in MDA and decrease in TCA was reported about levels in CYP group in compared with the control group, But CM significantly (p .05) repressed oxidative damage, and augmented oxidative defense in CM+CYP group. QPCR analysis showed that CM distinctly increased the meiosis genes Scp3 (p .05) in comparison to CYP . Moreover, In the CYP group, there was a significant increase (p .05) in the sperm DNA fragmentation and a significant decrease in DNA maturation compared with control group. That was improved by CM in CM+CYP group compared to CYP group; However the result of AB and AO tests statistically showed a non-significant diference between CM+CYP against CYP and normal.

Conclusion: CYP treatments were associated with deleterious genetic changes and biochemical in mice testicles, and these can be modified by CM. Secretory factors of conditioned medium from adipose tissue-derived stem cells could be effective in the restoration of spermatogenesis in CYP-induced infertile mice.

G-1402

Examination of synergistic effect of zinc oxide nanoparticles and extract of Rhus coriaria on oral bacteria

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Introduction: Microbial resistance in pharmaceutical product with antimicrobial properties has been increased in recent years. Prevalence of resistance of some bacteria to ordinary mouth washes such as chlorhexidine has been reported. Considering the antimicrobial effect of certain plants mentioned in traditional medicine such as Rhus coriaria as well as reported anti-inflammatory effect of it, in this study we decided to evaluate the synergistic effect of Rhus coriaria's extract and zinc oxide on inhibiting growth of normal flora and oral pathogens bacteria.in order to potentially utilize, these two compounds in the preparation of mouthwashes with suitable antibacterial and anti-inflammatory effects. If synergistic effect is observed, it may be possible to use zinc oxide in concentration below the toxic levels.

Method & material: The microdilution method was used to measure the minimum inhibitory concentration (MIC) of zinc oxide nanoparticles and hydroalcoholic Rhus coriaria extract against the studied pathogens. Then evaluate the synergistic effect of Rhus coriaria hydroalcoholic extract and zinc oxide nanoparticles in this study using the Checkerboard method. In this method, the activity of two combined substances with antibiotic effects is compared with each of them alone. The Fractional Inhibitory Concentration (FIC) index was used to determine the effect of synergism, additive, or antagonist.

Result: The MIC of hydroalcoholic extract of Rhus coriaria and zinc oxide nanoparticles on Streptococcus mutans was 2.5 mg/ml and 0.25 mg/ml, respectively. This amount was 1.25 mg/ml and 0.1 mg/ml for Streptococcus sanguinis, 1.25 ml and 0.8 mg/ml for Lactobacillus delbrueckii, 0.625 mg/ml and 0.8 mg/ml for Lactobacillus casei, and 0.625 mg/ml and 0.4 mg/ml for Candida albicans, respectively. The FIC index was obtained 1 for Lactobacillus casei and Lactobacillus delbrueckii and 2 for Streptococcus sanguinis, which is ineffective. This index for Streptococcus mutans and Candida albicans was 0.624 and 0.75, respectively, indicating an additive effect.

Conclusion: The results showed that simultaneous use of Rhus coriaria's extract with zinc oxide has additive effect on inhibiting growth of some of oral pathogenic bacteria such as Streptococcus mutans and Candida albicans but simultaneous use of these two compounds on normal flora bacteria among Lactobacillus casei, Lactobacillus delbrueckii and Streptococcus sanguinis was ineffective or even had an antagonist effect on them. Therefore a suitable concentration of this combination can be used to formulate mouthwash with lower toxicity against normal flora.

G-1403

The role of α2-adrenoceptors of mPFC on stress-induced analgesia during inflammatory and tonic pain in rat

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Introduction: In chronic neuropathic, the medial part of pre-frontal cortex (mPFC) was found to undergo either structural or functional alterations in pain conditions. Indeed, both gray matter volume and neural firing rate in the mPFC decreased in patients with chronic pain. It is well accepted that intense stress or fear give rise to a suppression of pain termed "stress-induced analgesia," mediated by brainstem pain-modulating cortices, including mPFC. Although there is ample of evidences for the stress-induced analgesia, the underlying mechanism of this effect remains almost unknown. In the present study, we assessed whether α-adrenoceptors of mPFC is involved in the neurobiological basis of stress-induced analgesia in rat.

Method & material: Hear, we assessed the intra-mPFC injection effects of clonidine, as a α2-adrenoceptor agonist, and yohimbine, as a α2-adrenoceptor antagonist, on the tonic pain (using tail flick test) and inflammatory pain in rat with or without swim stress. Animals (Male Wistar rats) were divided into 6 groups (n=6 / each group): control+ clonidine (10 µg/µl), control+ yohimbine (10 µg/µl), swim stress + clonidine (10 µg/µl), and swim stress + yohimbine (10 µg/µl) groups. Swim stress was performed in a swimming tank for 6 minutes. The mean nociceptive scores were measured during phase 1 (1–5 min), and phase 2 (5–90 min) of the formalin test. All drugs were injected 5 minutes before swim stress (single dose). The inflammatory pain model was induced by injection of formalin into the surface of the hind-paw of rats. Formalin test consists of phase 1 (0–5 min) and phase 2 (10–60) in which the animal shows painfulbehavior.

Result: Intra-mPFC injection of clonidine significantly reduced tonic pain and inflammatory pain. Additionally, intra-mPFC injection of yohimbine significantly increased tonic pain and inflammatory pain. Moreover, intra-mPFC injection of yohimbine significantly reduced stress induced analgesia.

Conclusion: Our data suggested that α2-adrenoceptors of mPFC have critical role in both tonic and inflammatory pain. Indeed, stimulation of α2-adrenoceptors of mPFC by clonidine effectively induced analgesia in intact rats. Similarly, application of clonidine markedly increased stress induced analgesia.

G-1404

Investigating the ethical atmosphere of the hospital and its relationship with the nurses attitude towards doctor–nurse cooperation in educational–therapeutic centers of Sanandaj city in 1400

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Introduction: The moral atmosphere of the hospital is a type of organizational atmosphere consisting of interpersonal relationships of treatment personnel and the relationship of personnel with patients and their families. Ethical climate, which reflects people's perceptions of their organization and is one of the most important and influential factors on the attitude and behavior of employees in the workplace, can be influenced by the interprofessional cooperation of doctors and nurses.

Method & material: In this descriptive-cross-sectional study, 285 nurses working in the wards of Sanandaj teaching hospitals who were eligible to enter the research were selected by stratified random method. To collect data, Olson's ethical atmosphere questionnaire and the attitude towards the cooperation of doctors and nurses of the Jefferson scale were used.

Result: The mean score of the moral atmosphere of the hospital from the point of view of the nurses was 3.68±0.68, which indicates the optimal level of understanding of the moral atmosphere among the nurses. The average score of nurses' attitude towards doctor-nurse cooperation was 50.60±5.27, which is at a positive level. The results of the statistical analysis showed that there was a significant statistical relationship between the dimensions of the nurses' perception of the moral atmosphere of the hospital and the nurses' attitude towards the doctor-nurse cooperation ($r = 0.444$, $P = 0.001$).

Conclusion: Considering that doctor-nurse cooperation is one of the important features in providing care, it is suggested to provide training to improve the spirit of participation and cooperation in educational and clinical environments.

G-1405

Artificial intelligence contribution in pain management: a systematic review

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Introduction: Pain, as one of the most common problems of people all over the world, has caused significant negative effects on people's quality of life. Assessment, diagnosing and proper management of pain can improve patient outcomes. In this regard, artificial intelligence with the help of data-based medical science has greatly contributed to this field. This systematic review study was conducted with the aim of investigating artificial intelligence in the management of patients' pain.

Method & material: Medline, Proquest, Embase, Web of Science, and Google scholar were searched until March 2023. PRISMA protocol has been used for data reporting. JBI was used for quality appraisal of the studies. Finally, 16 articles were included in the study.

Result: The results show the use of machine learning as a sub-branch of artificial intelligence in the assessment, diagnosis and treatment of various types of pain in patients. The included studies used facial image analysis, neuroimaging techniques, and wearable sensory devices for assessment of pain. Physiological data and autonomic activity (heart rate variability and vital signs) were other strategies. Also computer-based decision support system was another contribution of artificial intelligence and machine learning to help physician choose proper patient's analgesic dosing. Apps which are based on artificial intelligence such as mobile apps have positive effects on pain management, including reducing pain intensity, decreasing the usage of other medical interventions and improve the quality of life of chronic pain patients.

Conclusion: Studies have shown that in recent years, the use of machine learning in medical fields, such as pain management, has had many benefits for improving patient outcomes. However, due to the challenges and possible errors of artificial intelligence, further studies are needed to confirm their effectiveness.

G-1406

The effects of formulated cinnamaldehyde on the activity of thalamic neurons and pain responses in the neuropathic pain in rat

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Introduction: Neuropathic pain (NP) often accompanies nerve injury or damage to the nervous system and it can be categorized as central or peripheral pain. Chemical or inflammatory changes at the injury site can increase nerve deterioration. Current treatment of NP is far from clear. It is reported that reactive oxygen species (ROS) are implicated in NP. Indeed, the increased ROS generation changes the mitochondrial genome via the accumulation of lipid peroxidation products. Medicinal plants have been used in folk medicine for treatment of NP and so could represent a promising alternative choice for NP treatment. The present study is focused on improving bioavailability of poorly soluble cinnamaldehyde by formulation and emulsifying of that, using the solid self-emulsifying drug delivery system and assessing its analgesic effects in NP in rat at the cellular level.

Method & material: The NP model was induced by ligating the left sciatic nerve (chronic constriction injury: CCI model) of the male Wistar rats (180-200 gr). They were divided into 3 groups: sham group, CCI group, CCI+ cinnamaldehyde emulsion (0.1 M) group. They were administered for 30 days (daily, once/day). Cold allodynia were assessed during the experiment (on days 2, 4, 7, 14, 21 and 30 after CCI surgery). Frequency of action potentials of thalamic neurons assessed on day 30 after CCI surgery, using extracellular single unit recording. At the end of the electrophysiological study, brain tissues of rats were collected, and oxidative biomarkers evaluated.

Result: Cinnamaldehyde emulsion significantly decreased cold allodynia of CCI rats (analgesic activity). Furthermore, gavage of cinnamaldehyde emulsion significantly decreased frequency of action potentials of thalamic neurons on CCI rats as compared with CCI group. Additionally, application of cinnamaldehyde emulsion significantly normalized redox equilibrium in the brain.

Conclusion: Our data suggested that formulated cinnamaldehyde, as emulsion form, have analgesic effects via alteration of thalamic neurons activity and normalized redox equilibrium in the brain.

G-1408

Examining the approach of pharmacists in Alborz province regarding the management of premenstrual syndrome using herbal medicines and non-pharmacological treatments

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Introduction: Premenstrual syndrome (PMS) is a combination of symptoms that many women get about a week or two before their period. Most women, over 90%, say they get some symptoms. The aggravated form of PMS mental symptoms is called premenstrual dysphoric syndrome (PMDD). Unlike PMS, PMDD requires medical interventions and drug treatment.

Method & material: In a cross-sectional survey 185 pharmacies were surveyed; the translated-localized questionnaire of Kebangsaan (Malaysia-2020) was distributed among them and 112 valid questionnaires were received with a response rate of 60%. Questionnaires were analyzed with Spss 26 software; using descriptive statistics and correlation coefficient.

Result: 70% of the respondents were female and 43% were under 30 years. Female pharmacists had a significantly (P=0.001) higher knowledge level than male. There was an inverse relationship between work experience, age and knowledge of pharmacists. Pharmacists with less than 10 years of work experience and under 30 years had a higher level of knowledge than other pharmacists. 40% of pharmacists were aware of the difference between PMS and PMDD, and 67% of them generally had an acceptable level of knowledge regarding common women's diseases. 83% of pharmacists have a positive attitude towards their role in PMS management and considered non-drug recommendations to control PMS as necessary. Painkillers mefenamic acid and ibuprofen and herbal medicines evening primrose oil were recommended more.

Conclusion: Based on the knowledge of pharmacists in this research and previous researches, pharmacists, as the first line of treatment, should improve their knowledge about gynecological diseases and it is appropriate to increase the time and quality of reliated educational materials in the pharmacy curriculum. Comparing the results of this research with international researches, the people of Asian countries have a great desire to consume medicinal plants, and evening primrose medicine was the most recommended in both countries. Therefore, it can be concluded that the marketing of Iranian herbal medicines to Asian countries will be welcomed.

G-1411

Investigating the impact of cultural-student activities in promoting the character of medical ethics and responsibility of students of Ardabil University of Medical Sciences

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Introduction: One of the most basic aspects of medical ethics is communicating with others and being responsible towards society and people.The social responsibility of the medical staff plays an effective role in improving the quality of service delivery and reaching the desired goals of the health system. Therefore, their responsibility is important to act as social capital and work ethic for the hospital.Cultural activities are activities whose purpose is to change, strengthen or develop the values and knowledge and social relations of the society.The performance of the university can be evaluated well when its purpose is to produce informed, thinking and self-directed students and the students act responsibly and have problem solving skills. In general, universities act in the direction of increasing maturity and social competence.The purpose of this study is to investigate the role of student-cultural activities in the social responsibility of students of Ardabil University of medical sciences.

Method & material: In the present study, which is a descriptive-cross-sectional study, the indicators of responsibility in the form of seven main indicators of self-management, orderliness, legality,trustworthiness,conscientiousness,organization and progressivism were selected based on the California psychological model and the Eysenck personality questionnaire.The statistical population includes the students of Ardabil University of Medical Sciences in 2019, according to the inquiry from the Vice-Chancellor of Education, 3630 people, and based on Morgan's table, 248 people are selected as the statistical sample of the research. The sampling method is randomly classified. The data will be analyzed using the descriptive statistical method including determining the mean and standard deviation and performing t-test in the form of tables and graphs in SPSS software, and p0.05 will be statistically significant.

Result: In this study, 32.8% of the participants were male and 67.2% were female. 73.6% of the total samples participated in student cultural activities. A positive and direct significant relationship was seen between the variable of participation in cultural activities and responsibility (p=0.001). The difference between the disciplines in terms of the responsibility score was significant (p0.05), that is, all the disciplines did not have the same responsibility score. And this rate has been higher in health faculty students than others. The score of responsibility among incoming students of 2018 is higher (p=0.002).

Conclusion: Providing the field of cultural activities to the desired condition can have a significant role in increasing and improving social responsibility in medical students, which can be the basis of quality and increase efficiency in teaching hospitals.

G-1412

Lessons learned by Babol pre-hospital emergency organization during the Covid-19 outbreak

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Introduction: The emergence of Covid-19 and the experience of any organization in facing it can be effective in crisis management, control and prevention of other emerging diseases in the future. Therefore, this study aims to explain the lessons learned by the Babol pre-hospital emergency organization in this regard.

Method & material: This descriptive-qualitative study was conducted with content analysis and purposeful sampling in the Babol pre-hospital emergency organization. During an oral interview with the officials of various parts involved in the management of Corona including the head of the organization, the technical and operations deputy, the person in charge of medicine and equipment, education and research, passive Defense, infection control, supervisors of operational bases, information listed and were divided into two categories and six sub-categories.

Result: The obtained information was divided into software and hardware measures categories. The hardware category was divided into four sub-categories (corona clothing, clothing sizing, personal protection kit, transportation) and the software category was divided into two sub-categories (infection control protocol in dealing with COVID-19, infection control workshop). The supply of washable and temperature-resistant clothing is the prominent action of this center, the fabric of this clothing was sewn in three sizes according to statistics according to the different sizes of the personnel.

Conclusion: Reducing costs by using reusable devices, creating creativity and initiative within the organization can be helpful in dealing with emerging diseases and getting out of the crisis. Therefore, this lesson learned can be used before the emergence of other new diseases.

G-1413

DPSCs, a new window in the treatment of bone weakness in the implant process

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Introduction: Dental implants are an effective treatment strategy for the rehabilitation of minor defects or complete toothlessness due to their aesthetic, functional, and high success rates; However, the complete replacement of teeth by implants is not without problems, and in fact, the volume and density of the bone around the implant (alveolar) is a very important factor that determines the overall outcome of the implant. Reconstruction of the vertical and horizontal height of the alveolar bone with the appropriate quantity and quality for the placement of the dental implant base is considered a big challenge in dentistry; Because the root of the implant should be directly connected to the alveolar bone without the intervention of fibrous connective tissue and the process of osseointegration should be established.

Method & material: The present study is based on a review of the texts available in Google Scholars, PubMed, and ProQuest databases with keywords such as osteogenic differentiation of DPSCs, dental implant, alveolar bone repair, osseointegration related to the years 2018 to 2023 was done and 15 related articles were found; Articles without full text and animal models were excluded from the research process.

Result: According to the conducted research, morphological changes, histological analysis, and having embryonic ectomesenchymal origin, DPSCs isolated from the third molar are an excellent alternative for the reconstruction of the vertical height of the depleted and weakened alveolar bone. To repair alveolar bone that has lost its density for implant placement due to infectious diseases such as periodontitis, tooth extraction, and osteoporosis, etc., the use of DPSCs, which have many advantages, including high proliferation potential, convenient access without ethical issues, has anti-inflammatory and self-renewal properties, is very efficient. Laboratory studies show that injecting DPSCs with gelatin scaffolds and grafting materials can strengthen bone formation, and bone integrity. DPSCs, due to their multiple embryonic origins, first increase blood vessels and local angiogenesis to supply nutrients; Then they start bone formation by differentiating into osteoblasts and osteoclasts.

Conclusion: In the future, the best treatment method is to use DPSCs for alveolar bone regeneration instead of treatment methods such as autologous or allograft bone grafting, sinus lift operation, using bone powder, which has limitations such as complications of the donor area, poor biocompatibility, insufficient amount of graft bone. It doesn't have it and it reduces the economic and medical costs. This treatment is a very clear vision to solve the most important implant challenge, which is bone repair.

G-1414

Investigating the relationship between malnutrition and the prevalence of bedsores in intensive care units: a cross sectional study

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Introduction: Bedsores are one of the major problems in patients hospitalized in the intensive care unit, which slows down the recovery process of patients and delays their discharge, as well as incurs high costs for the patient, family, hospital, health institutions and society. Therefore, it is important to investigate the effective factors in its creation. Many studies indicate that there is a relationship between malnutrition and the development of bedsores, while some studies contradict this relationship. Therefore, this study was conducted with the aim of investigating the relationship between malnutrition and bedsores in the special care department of Isfahan University of Medical Sciences.

Method & material: The present study was a prospective cohort study with the code of ethics IR.MUI.REC.1394.2.261. The available sampling was taken from the intensive care units of Al-Zahra, Amin and Kashani hospitals in three shifts, morning, evening and night. The inclusion criteria were 18 years of age or older, absence of bedsores upon admission, and hospitalization in the ward for at least 48 hours. The number of samples was determined as 120 patients. The patients were examined every two days for a month, and then their weight loss and the presence or absence of bedsores was evaluated by the Waterloo scale.

Result: Among the sample population, 42 people (18 women and 24 men) got bedsores and 78 people (27 women, 51 men) did not get it. The chi-square test showed that there is no significant relationship between the qualitative variables (nutrition status, gender and weight loss) with the prevalence of bed sores (P0.05) and similarly, the Mann-Whitney test also showed that there is no relationship between the age variable and the prevalence of bed sores (P0.05).

Conclusion: There was no relationship between malnutrition and the prevalence of bedsores in intensive care units. In future studies, the impact of this item and other factors in causing bedsores should be investigated using logistic models.

G-1415

Stroke Code Delay in Pre-hospital Emergency; A Systematic Review

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Introduction: Identifying the factors associated with early or delayed hospital admission after a stroke is very important in improving the rate of thrombolytic therapy. However, the efforts to reduce the delay in the hospital have been associated with a small improvement in the pre-hospital delay, which requires more studies in this regard. Therefore, this study aims to determine the factors affecting the delay in pre-hospital emergency so that by identifying these factors and providing a special solution for each factor, the management of this phenomenon can be improved.

Method & material: This systematic review was conducted by searching in Web of Science, Scopus, Pubmed, Google Scholar, Embase, Up to Date, and Cochrane databases with keywords. Stroke, Nursing, Neuroscience Nursing, Nursing Care, Emergency Medical Services, Prehospital Emergency Care, Emergency Care, Emergency Health Service, Emergency Care Prehospital and non-mesh words such as stroke code, stroke code, stroke notification, stroke challenges, to cover most of literature and Persian language studies were searched through SID, IranMedex and IranDoc scientific databases as well as Magiran with a time limit of the last 5 years (2017-2023). All related studies and access to the full text were included in the study. Due to the overlapping of some databases and simultaneous indexing of one article in several databases, a number of duplicate titles were removed (17 articles). Then, PRISMA was used to check the quality of the articles, and finally, 18 articles were included in the study.

Result: The results showed many challenges in the field of stroke code because in Iran, the time interval between the onset of symptoms and hospitalization is delayed in many cases. The challenges of the stroke code in the pre-hospital emergency department were categorized into 6 categories, including time window, lack of public awareness, informed caregivers, residence, technology, and emerging diseases. The solutions are also in the form of 10 levels which included public awareness, training and empowering employees, transportation by air ambulance, proper triage, equipped stroke ambulance, telemedicine, choosing the right destination, organizing and coordinating elements, creating an information bank and quality improvement process.

Conclusion: The solutions used by developed countries for optimal time management in pre-hospital stroke emergency and their localization can be considered as a model for Iran. More extensive studies on the stroke code survival chain according to the country's conditions will be recommended.

G-1416

Investigating the power of the Waterloo tool in predicting the incidence of bed sores in intensive care units: a Cross sectional study

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Introduction: Bed sore is considered one of the major problems in patients hospitalized in ICU departments and it happens frequently in them. These wounds have adverse effects on the health of patients, so preventing their occurrence is very important. The first step in preventing pressure ulcers is to assess the risk of developing them. The Waterloo scale is one of the tools designed to predict the occurrence of bedsores. But studies have investigated its strength and validity to a lesser extent. Therefore, the aim of the present study is to investigate the power of the Waterloo tool in predicting the incidence of bedsores in intensive care units.

Method & material: The present study was a prospective cohort study with the ethics code IR.MUI.REC.1394.2.262, which was conducted in the intensive care departments of hospitals affiliated to Isfahan University of Medical Sciences. The number of samples was considered to be 120 patients and sampling was done as available. Inclusion criteria included age over 18 years, absence of bedsores during hospitalization, hospitalization in the ward for at least 48 hours, absence of chronic liver, kidney, and ascites diseases, as well as Waterloo score greater than 10. Based on the Waterloo scale, a score of 10 or above 10 indicates a high risk of bed sores. The risk of bedsores in these patients was checked once every 2 days using the Waterloo scale while changing the position of the patients until the patient died or was discharged. Patients were evaluated for a maximum period of one month, and then the power of the Waterloo.

Result: In the present study, the independent t-test showed that the average Waterloo score in patients who developed bedsores was significantly higher than in patients who did not develop bedsores (P 0.001). The sensitivity of the Waterloo scale was 73.9%, the specificity was 68%, and the positive predictive value and negative predictive value were 35.4% and 91.7%, respectively.

Conclusion: According to the area under the curve as well as the sum of the sensitivity and specificity indices, the Waterloo scale is a powerful tool for predicting bedsores in intensive care units.

G-1418

Investigating the role of ethics in the quality of nursing care of Iranian nurses

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Introduction: The quality of nursing care is one of the important factors in accelerating the recovery of patients. Moral sensitivity as the cornerstone of professional ethics in nursing provides the basis for efficient and ethical care. Therefore, this study was conducted with the aim of investigating the role of moral sensitivity in the quality of nursing care among a sample of Iranian nurses.

Method & material: This cross-sectional descriptive study was conducted on 250 nurses in Qazvin city in 2022. The samples were selected by the census method and were included in the study with the minimum criteria of a bachelor's degree and having at least 6 months of work experience. Data collection tools included demographic information questionnaire, moral sensitivity questionnaire (MSQ) and quality patient care scale (QUALPAC). The collected information was analyzed using SPSS version 20 software and using descriptive statistics and univariate and multivariate regression methods.

Result: The average age of the nurses in this study was 32.62 years and the samples were between 22 and 54 years old. Among them, 55.6% of the participants were women and 44.4% were men. The average score of moral sensitivity was 63.85 and the average score of nursing care quality was 197.24. Data analysis showed that moral sensitivity (? = 0.43, p0.001), gender (? = 0.30, p0.001) and economic status (? = -0.17, p = 0.003) are the most important predictors. were the quality of nursing care.

Conclusion: The results of this study showed that the quality of nursing care has a positive and significant correlation with moral sensitivity. It is recommended that future studies evaluate how interventions to improve moral sensitivity improve the quality of nursing care.

G-1419

Translation and validation of assessment tool for nursing instructor, supervisor and clinical environment from students point of view

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Introduction: Clinical training is an essential part of nursing education programs. Learners' comments in the education process are of particular importance to improve the quality of clinical education. Therefore, a reliable tool that can evaluate students' views is needed. The purpose of this study is to validate the evaluation tool of nursing instructor, supervisor and clinical environment from the point of view of CLES + T nursing students.

Method & material: The questionnaire has 27 items and 5 fields, which are ward environment, ward leadership and management style, nursing care facilities in the ward, educational facilities in the ward, supervisor communication. Translation and re-translation were done by three translators. For qualitative face validity, the questionnaire was given to 10 professors of Iran's nursing faculty. In order to determine the quantitative face validity, with the aim of calculating the item impact index, the questionnaire was provided to the target group. To determine the validity of the qualitative content, the content validity ratio CVR and the content validity index CVI were used. In order to determine the construct validity of the questionnaire, it was given to 427 nursing students. After data collection, confirmatory factor analysis was performed. Also, to check the reliability, the internal agreement measurement method was used through Cronbach's alpha.

Result: The effectiveness score of the items was higher than 1.5. The mean content validity index for the entire questionnaire was 0.93 and the Cronbach's alpha coefficient score was 0.91 for the entire questionnaire. In terms of construct validity, questions 2, 3 and 13 times had a factor less than 0.4 and were removed from the final questionnaire.

Conclusion: The results showed that the CLES + T instrument of the Persian version has appropriate validity and reliability and can be used by students to evaluate the clinical instructor, supervisor and clinical environment.

G-1420

Assessment of Natural Anticoagulant Protein Levels in β–Thalassemia Major: A Comparative Analysis

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Introduction: β-thalassemia is a group of inherited blood disorders that affects the production of beta hemoglobin chains, leading to reduction or absence of these chains. One of the complications observed in patients with β-thalassemia major is thrombosis, especially in those who receive frequent blood transfusions. This is due to a decrease in the levels of the natural anticoagulants in the body, such as protein C (PC), protein S (PS), and antithrombin (AT).

Method & material: In this cross sectional study, patients with β-thalassemia major, who had received at least 20 packed cells, were included in the study. Patients with other underlying diseases besides thalassemia major and patients with other subtypes of thalassemia were considered as exclusion criteria. Totally, 118 patients with β-thalassemia major and 120 healthy individuals were included.

Result: The mean level of PC and AT was significantly lower in patients with β-thalassemia major compared to the control group (P=0.001, P=0.01), and a similar result trend was observed for PS, although the difference was not statistically significant (P=0.1).

Conclusion: it seems that β-thalassemia major patients who receive blood transfusions frequently are at an increased risk of thrombosis, and therefore, periodic natural anticoagulants monitoring may help reduce their risk of thrombosis.

G-1421

Inhibitory effects of heat-killed culture supernatant of Bacillus coagulans against CT-26 colon cancer cells

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Introduction: Probiotic microorganisms produce compounds that have the potential to affect human health. They appear to be a promising cancer treatment. The supernatant of bacterial cultures contains bacteria-produced chemicals that can be used as a model for anticancer research. The purpose of this investigation was to examine if the culture supernatant of heat-killed Bacillus coagulans had any inhibitory effects on CT-26 colon cancer cells.

Method & material: The study was conducted in a cell culture setting. Various amounts of Bacillus coagulans extract were utilized to treat the CT26 cell line after it had been cultured. The anticancer effects of the probiotic were determined using MTT (cell proliferation) tests, ROS production rate, LDH release rate, and survival rate. $P<0.05$ was used as the threshold for significance in all tests.

Result: Bacillus coagulans extract resulted in a significant reduction in proliferation, a significant increase in the percentage of cells that went into apoptosis, a major increase in ROS generation, and a significant increase in LDH release when compared to the control group.

Conclusion: The usage of Bacillus coagulans probiotic appears to be a strong contender for the treatment of colon cancer, according to the findings of this study.

G-1423

Comparison of the effects of modified bass and vertical brushing methods in 2 and 5 minutes on periodontal plaque index in dental students of Kurdistan Medical Sciences

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Introduction: Microbial plaque is the main etiological factor associated with periodontal disease, and the most common way to control it is to use a toothbrush. The purpose of this study is to compare the effect of modified bass and vertical brushing methods in 2 and 5 minutes on periodontal plaque index.

Method & material: This study was conducted as an intervention (before, after) on 68 dental students.Students were randomly divided into 4 groups of 17.On the day of the study (day zero), each of the students was given a new pampers toothbrush, diamond model with a medium brush for adults (without toothpaste), and in order to unify the index plate, prophylaxis was performed for all students and brushing methods was taught The students were told to refrain from doing any hygiene for 48 hours and to return on the third day. On the third day, first students plaque index were recorded in a special checklist, then students were asked to brush their teeth with the toothbrush they have according to their groupings.

Result: The average age of the students was 21.97 years. 54.4% were male students and 45.6% were female. The average total plaque index before brushing was 0.818 and after brushing was 0.0320.which had decreased in all groups,which was statistically significant.(p0.0001).The mean of PI in the modified bass group after brushing at two and five minutes showed no statistically significant difference. (P=0.34) The average decrease in PI in the Modified Bass group in 5 minutes was slightly higher than in the vertical group at the same time, but this decrease was not statistically significant.The decrease in the mean PI in the modified bass group at 2 minutes was slightly higher than in the vertical group at the same time, but this decrease was not statistically significant.With the increase in brushing time, the average plaque decreased more, and the modified bass method was more efficient than the vertical method.

Conclusion: According to the results of this study,if modified and vertical techniques are performed correctly, increasing the time does not make a significant difference in plaque removal and both methods can effectively remove plaque in the standard time of 2 minutes. As a result,considering that it is easier to perform the vertical method in people whose learning ability is less, it can be expected to use the toothbrush for at least 2 to 5 minutes in such a way that all the dental surfaces are cleaned.

G-1424

The impact of food additives on the production of personalized foods with 3D printing technology: A systematic review

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Introduction: 3D printers are a new technology used to produce personalized foods. The applications include food production for dysphagia patients, immunocompromised and CRD patients, restaurants, homes, caterings, schools, and astronauts' food. Food additives can have a great impact on the production of personalized foods. This systematic review studies the effects of additives on the properties of 3D printed foods (3DPFs) in personalization.

Method & material: Systematic review employing the PRISMA checklist. An article search in English was done on August 10, 2022. The systematic article has no period limits. The chosen databases were PubMed, Science Direct, Web of Science, and Scopus. The following keywords were used in the systematic search: (3D printed food or 3D food printing or 3D food) and (food additive or hydrocolloid or pectin or enzyme or transglutaminase (TGase) or salt or gum or probiotic or prebiotic or protein or starch or fiber or egg yolk or fat or vitamin). These food additives were selected based on the definition of the additive (improvement of safety, appearance, taste, freshness, texture and nutritional value) and include micronutrients and macronutrients that have been studied in literature original studies. In vitro and animal research, alternative techniques, book chapters, review articles, non-English publications, lab model systems, clinical research.

Result: Gums played a major role in all the manufactured products. Besides, the examination of 3DPFs produced for dysphagia patients showed that xanthan gum was the most desirable additive due to improvement of sensory, structural and rheological properties. Also, evaluation of immunocompromised patients shows that 3DPFs enriched with probiotics and polyphenols can help in increasing the nutritional value of these people's diet. In addition, plant additives that are meat substitutes can be effective for CRD patients. Also, additives such as vitamins and gums had the most use in commercial 3DPFs.

Conclusion: With the increasing demand for the production of 3DPFs, it is important to investigate different aspects of the formulation of these products. The characteristics of 3DPFs are highly dependent on the structure, ingredients, and additives. If the gums are used on a very high scale, they are not very effective. The next very important point is the ratio of gum and protein, which is more important in foods with high protein because if the amount of gum is much higher than protein, the structure will be weak. In general, gums in all food groups play a very important role in creating structure and influencing printability.

G-1425

The impact of synthetic and natural additives on biogenic amines production in food products: A systematic review

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Introduction: Biogenic amines (BAs) are compounds produced in foods containing proteins and amino acids by microorganisms. Protein-rich foods like meat, seafood, and dairy products are therefore particularly prone to BA production. BAs have harmful effects on health and can cause cancer. Food additives can affect the production of BAs in foods. This article aims to investigate the effect of food additives on the production of BAs in food products.

Method & material: This review provides a comprehensive overview of the impact of artificial and natural additives on reducing or increasing BAs formation in five food groups (meat, fish, wine, dairy, and plant-based foods) according PRISMA checklist. This systematic article was searched in PubMed, Scopus, and Science Direct on November 30, 2022 without a period. The keywords used in the systematic search included: ("Biogenic amines" or Tyramine or Cadaverine or Putrescine or Histamine) and ("food product" or "seafood" or "meat product" or "dairy product" or "plant-based food" or wine) and ("food additive" or antioxidant or sugar or "amino acid" or salt or enzyme or gum or "essential oils" or probiotic or postbiotics or "sodium nitrite" or "sodium nitrate" or "sodium ascorbate" or "sodium citrate" or "sodium sulfide"). A total number of 1288 articles were identified from databases.

Result: The results showed that food additives may increase, decrease, or have little effect on BA production in foods depending on the nature of the additive and the food matrix. Typically, the additives were introduced into the foods by simple mixing, encapsulation, or coating. Glucose, sucrose, sorbitol, diammonium phosphate, some yeasts, and some probiotics were reported to increase the production of BAs. The natural additives with the ability to reduce BAs include essential oils (e.g., cinnamon, clove, green tea, grape seed, ginger, onion, garlic, rosemary, lemon, cumin, and oregano), polyphenols (e.g., tocopherol, gallic acid, caffeic acid, catechin, and nicotinic acid), some yeasts, some culture starters, some enzymes, some salts, and nisin. The synthetic additives with this ability included sodium nitrite, sodium nitrate, sodium metabisulfite, sulfur dioxide, and bentonite.

Conclusion: Many additives contain active compounds that are able to inhibit the growth of microorganisms that convert amino acids into BAs. They do this by a variety of mechanisms, including interfering with bacterial cell membranes, enzymes in key biochemical pathways, and gene expression. Study shown that the impact of natural and synthetic additives on microbial growth and BA production can be significant.

G-1426

Assessment of cheese frauds, and relevant detection methods: A systematic review

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Introduction: Dairy products are widely consumed in the world due to their nutritional and functional characteristics. One of these products is cheese which has a high price compared to other dairy products. Because of this, it can be prone to fraud all over the world. The purpose of this review is to identify the most susceptible cheese type for fraud and effective methods for evaluating fraud in all types of cheeses.

Method & material: This systematic review was written using the PRISMA checklist (January 21, 2022), and there was no limitation (1991 to 2022) on searching for them. The chosen databases were PubMed, ScienceDirect, Web of Science, and Scopus. The keywords used in the systematic search included: (cheese or feta or mozzarella or ricotta or goat cheese or sheep cheese or parmesan) and (Fraud or "cheese fraud" or "cheese adulteration"). According to the search results, 365 articles were obtained in mentioned databases. With the removal of duplicate articles, 233 articles were selected for evaluation in the title and abstract sections, and inappropriate articles were removed for reasons (e.g. investigation of livestock age, geographical origin, non-English article, review, and chapter of book, not high quality, not available, unrelated enzymatic activities and articles that did not pay attention to fraud).

Result: Mozzarella cheese had the largest share among all cheeses in terms of adulteration due to its many uses. Also, the methods used to evaluate different types of cheese frauds were PCR, Spectrometry, electrophoretic, ELISA, sensors, sensory analysis, and NMR. The methods that were most used in detecting fraud were PCR and spectrometry methods. Also, the least used method was sensory evaluation. In cheese, the most common frauds were reported, including using other milk or mixing milk. It was also observed that vegetable oils such as soybean oil were used to modify the fat profile in cheese. In addition, other materials such as curd and starch are also among the materials that can be used in the adulteration of cheeses.

Conclusion: This systematic study investigated the types of fraud in cheese and their identification methods. Fraud in the food industry can affect human health with economic losses. It seems that some food additives can be used to adulterate cheese, which researchers are suggested to investigate in future studies. These additives sometimes make food products toxic and reduce their nutritional value.

G-1427

Determinants of Cervical Cancer Screening: Application of the Theoretical Domains Framework to Instrument Psychometrics

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Introduction: Cervical cancer screening (CS) at the population level can significantly reduce the morbidity and mortality of cervical cancer by detecting and treating the disease early. Regular participation in CS is essential, as it is estimated that 83% of cancer-related deaths could be prevented if all women eligible for screening were screened regularly. Given that no tool has comprehensively assessed barriers and facilitators to cervical cancer screening in Iranian women, this study was designed and implemented to determine the psychometric properties of a questionnaire assessing beliefs related to barriers and facilitators associated with cervical cancer screening based on a theoretical domains framework.

Method & material: In a two-phase methodological study, the psychometric properties of the questionnaire in the Iranian version were evaluated. After translating the tool and pre-testing it among 20 women, the content validity of the tool was reviewed by ten experts. In the second phase, the validated questionnaire was made available to 400 women visiting comprehensive health centers in Saveh County based on cluster sampling. The questionnaire included demographic variables and domains of the theoretical domains framework, including awareness, skills, environmental resources, motivation and goals, beliefs about abilities, feelings, social influences, and beliefs about consequences. The psychometric properties of the questionnaire were assessed using confirmatory factor analysis and Cronbach's alpha. SPSS 16 and Amos 16 software were used for data analysis.

Result: The mean age of the participants in the study was 41.39 years. 80% of the participants in the study were married. The content validity of the questionnaire was assessed with 20 women from the target group (women) and questions with scores above 0.7 were approved. Confirmatory factor analysis confirmed the nine-factor model with goodness-of-fit indices (CFA) of around 0.8, goodness-of-fit index (GFI) of 0.9, and root mean square error of approximation (RMSEA) of 0.08.Reliability of the tool was calculated by Cronbach's alpha and was obtained above 0.8 for the entire tool and nine domains of the questionnaire. Among the determinants of cervical cancer screening, beliefs about consequences had the highest mean.

Conclusion: The Persian version of the cervical cancer screening determinants questionnaire showed good reliability and validity in a sample of Iranian women. Cervical cancer screening is a public health issue that requires specific programs and education. Therefore, identifying its determinants with a standardized tool can lead to the design of effective support strategies, planning of educational programs, and appropriate interventions to better inform women about symptoms and identify problems.

G-1428

The role of drones in missions outside medical centers

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G-1429

Investigation of the curing effect of different light-curing devices on the microhardness of bleach paint composites

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Introduction: As of this date, patients are looking for white teeth and bleaching treatment. Advances in bleaching techniques have made the color whiter than natural teeth possible. Hence, the importance of curing or hardening the initial state of the software composite is determined. Due to few studies in the field of curing bleaching composites, the aim of this study was to investigate the effect of different light-curing devices on the microhardness of bleach paint composites.

Method & material: The present experimental laboratory study examined 168 samples of three types of composites in two shades A2 and Bleach. The composites studied were Filtek Z350, IPS Empress Direct, and Gaenial Antrior. From each composite, 28 cubic specimens with a size of 2.8.8 mm were prepared using a metal generator. Then the samples of each shade were divided into four groups of seven based on the type of light cure units. Valo, Blue Phase C8, C01-C, and LED-D were the light cure LED units used. During the curing process with the same radiant energy, the head of the light-curing device was in contact with the polyester strip of the sample surface, which covered the composite surface to obtain a smooth surface. The samples were then stored for 24 hours at 37°C and 100% humidity and their surface was polished with silicon carbide paper. Vickers VHN hardness was measured

Result: The interaction effect of 3 factors (type of light cure units and shade and composite type) on upper and lower surface hardness and lower/upper ratio was not significant. The type of composite has a more significant effect on upper and lower surface hardness and lower/upper ratio (P-Value = 0.001). In IPS and Z350 XT composites in both A2 and Bleach colors, the lower/upper hardness ratio in LED-D cured samples is significantly higher than in light-cured samples. In Gaenial Antrior composite in A2 color, the lower/upper hardness ratio in the cured samples with LED-D and Valo device was significantly lower than the cured samples with Bluephase C8 cure units, but in bleach color, the lower/upper hardness ratio in the sample LED-D cured samples was significantly less than the cured samples with other light cure units.

Conclusion: Owing to the impact of different light-curing devices on the hardness of different resin-based composite materials, to increase the hardness and durability of composites, it is important to consider the differences between light-curing devices and composite types.

G-1432

Efficacy of Drimia maritima Oil on Breast Size in Micromastia

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Introduction: Micromastia, or breast hypoplasia, is characterized by diminished development in a woman's breast tissue postpuberty. Depending on the severity, Micromastia can cause significant physical and mental distress, particularly in adolescence, and insufficient breastfeeding later in life. There are a few treatment options for Micromastia, but the most common is breast augmentation using implants. However, silicon implant treatment may lead to considerable long-term complications such as rupture, capsular contracture, breast implant-associated anaplastic large cell lymphoma, or infection. Additionally, the high cost and the pain caused by surgery necessitate the study of different treatment options. In this clinical trial, we aim to investigate the efficacy of a Phytochemical composition based on Drimia maritima plant oil as a less invasive alternative for breast enlargement.

Method & material: The composition was tested in a randomized, double-blind, placebo-controlled trial on 60 patients with a mean age of 31. Inclusion criteria were: dissatisfied with breast size; single; over 18, and patients with hormonal medication; contact dermatitis; thyroid disorders were excluded from the study. All Participants provided written informed consent and were examined to confirm Micromastia by a specialist. Participants were then divided into two groups of intervention and placebo, each with 30 cases of confirmed Micromastia. The intervention group received treatment based on Drimia maritima oil (Twenty drops were applied on breasts twice a day, every day for a month, and washed with warm water 5 hours after administration), and the other group received olive oil as a placebo.

Result: After one month, both groups saw an increase in breast circumference (BC), but only the changes in the intervention group were statistically significant. There were no significant differences between intervention and placebo groups in height, weight, and body mass index (BMI) and no statistically significant correlation between BC and other confounding variables pre- and post-intervention in either group. Prior to treatment, BC was measured to be 74.5 ± 7.7 and 79.43 ± 1.83 centimeters in placebo and treatment groups respectively. Whereas one-month post-intervention, BC was measured to be 74.87 ± 7.8 in the placebo and 81.3 ± 1.64 in the treatment group, with Changes in the intervention (1.87cm) estimated to be at least five times more than the placebo (0.37cm).

Conclusion: This trial's results demonstrated improvement in breast tissue size after using our herbal composition based on Drimia oil, which could provide a promising treatment option for Micromastia.

G-1433

The effect of micronutrients on wound healing: (A review study)

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Introduction: The process of wound healing is a complicated physiological activity and various cells and messenger molecules play a key role in the wound repair and regeneration. Nutrition as an important factor in health has a vital role in this process. The undesirable nutritional status is associated with an increase in the risk of wound progression and reduces its improvement.

Method & material: A systematic search without time limitation up to June 2023, for all results related to the effect of vitamins and minerals on wound healing, in PubMed and Google Scholar databases was done. The keywords that were used in the search strategy include: wound ،sore ،lesion ،wound healing, micronutrient, vitamin, mineral and nutrition. In addition to find more qualified studies, the reference list of articles was also investigated.

Result: Finally 15 articles were reviewed. The evidence indicated the effect of various micronutrients on wound healing. Vitamin A is essential for skin cells proliferation and differentiation. However, excessive consumption has adverse effects. Vitamin C has an important role in collagen formation and wound healing. Vitamin E as a fat-soluble antioxidant has antiseptic, anticancer and skin stabilizing properties. Zinc plays an important role in the healing process of skin wounds due to its antibacterial effects, fibroblast proliferation, acceleration of extracellular matrix synthesis, and reduction of free radical production. Selenium is another mineral that has role in increasing proliferation and anti-inflammatory effects of mesenchymal stem cells. Iron accelerates the wound healing process by increasing oxygen supply to the damaged area. Omega-3 fatty acids are effective in skin protection against bacterial infection and reduce wound inflammation. Also it has been shown that glutamine and arginine amino acids have role in wound healing.

Conclusion: Available evidence shows that micronutrients including vitamin A, vitamin C, vitamin E, Zinc, Selenium, Iron as well as nutrients such as omega-3 fatty acids, arginine and glutamine are effective in wound healing through different mechanisms.

G-1434

Arterial embolization and treatment of a rare case of hemangioblastoma

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Introduction: Hemangioblastomas (HBs) are benign central nervous system tumors, ranking as the third most common primary spinal cord tumor following astrocytoma/ependymoma. They can occur sporadically or as part of von Hippel-Lindau disease, an autosomal dominant condition often associated with multiple tumors. Spinal HBs are typically found dorsally within the spinal cord. The primary treatment option is complete surgical removal of the tumor. Preoperative embolization is sometimes employed to minimize intraoperative bleeding and surgical duration. Embolization is a versatile technique used across various vascular and non-vascular systems to address a wide range of pathologies. The articles in this case report aim to present a rare case of hemangioblastoma admitted with headaches and left-sided weakness. The treatment process involved the use of embolization.

Method & material: This case explores the impact of embolization on a patient with a rare hemangioblastoma tumor. The patient did not experience significant complications from embolization, and favorable conditions were created for total resection.

Result: A 33-year-old male patient presented to the hospital with a one-year history of posterior headache that had worsened over the last three weeks. Additionally,he complained of weakness in the left side of his body. Initial vital signs were within the normal range.The patient had not experienced seizures,head trauma, or nystagmus during examinations. However, he reported blurred vision on the left side and left-sided weakness, raising suspicion of a tumor. Brain CT and MRI scans revealed the presence of hemangioblastoma, confirmed by biopsy reports. After obtaining legal consent and consulting legal medical experts, no contraindications for surgery were identified in the laboratory indicators. Given the tumor's size and location,embolization was performed to prevent bleeding and reduce surgical duration.Following the patient's stabilization,total resection was undertaken.The surgery successfully removed the tumor,and the patient was transferred to the hospital's internal ICU under GCS 3 anesthesia for comprehensive evaluation and specialized care.

Conclusion: We presented a rare case of hemangioblastoma to enhance conditions for total tumor resection. No complications resulting from embolization were observed during further investigations. Moreover, some of the patient's symptoms, including left-sided weakness and blurred vision, improved following the surgery. The tumor was completely excised, leading to symptom resolution. Consequently, embolization can prove highly beneficial in cases of hemangioblastoma.

G-1435

Acute Coronary Syndrome Referred to Imam Hossein (PBUH) Hospital, Shahroud, 2022: A Cross-sectional Study

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Introduction: Individuals with Acute coronary syndrome (ACS) experience a tremendous psychological burden, typically in the form of death anxiety due to acute medical conditions and the possibility of mortality. The unfavorable conditions of these patients cause them to reconsider the meaning of life and their spiritual well-being. This study evaluated the association between death anxiety and spiritual well-being in patients with ACS.

Method & material: A total of 241 patients with ACS were assessed using an accessible sampling technique in Shahroud, northeast of Iran. The data were collected using the Templer Death Anxiety Scale (TDAS), and the Ellison and Paloutzian Spiritual Well-being Scale (SWBS). The data were analyzed by descriptive and inferential statistics (Multivariate regression method). The significance level was considered equal to 0.05.

Result: The patients' average age was 63.72±13.23 years. All patients indicated a high degree of death anxiety, and roughly half reported a moderate level of spiritual well-being. There was a significant and direct correlation between death anxiety and spiritual well-being levels. In addition, older age, single status, and nonsmoking were markers of good spiritual well-being.

Conclusion: According to the findings, calming these individuals' fears of death must be a priority if they are to experience a rise in their sense of spiritual well-being. A multidisciplinary health team should identify and implement approaches to promote spiritual well-being and reduce mental suffering.

G-1436

Investigating the relationship among anxiety, depression, and stress and related factors caused by COVID-19 on the quality of life among students in southeast Iran

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Introduction: On January 30, 2020, the Emergency Committee of the World Health Organization COVID-19 declared an international emergency. Studies have shown that during the COVID-19 pandemic, the level of anxiety and depression was very worrying because of the mental complications caused by this disease. On the other hand, the effect of these related factors caused by Corona and its relationship with the quality of life of students of one of the universities in southeast Iran has been investigated.

Method & material: This cross-sectional descriptive-analytical questionnaire-based study was conducted at the Zabol University of Medical Sciences. The collected information consisted of three axes: The first part included demographic information. The second part included standard questionnaires of Perceived Social Support (MSPSS), Corona Anxiety Questionnaire (CDAS) and used the stress subscale of the DASS-21 questionnaire to measure the level of stress. The third part included the 36-question SF-36 quality of life questionnaire, which evaluated quality of life. After data collection, SPSS software was used to describe (frequency, percentage, mean and standard deviation) and analyze (independent t, one-way analysis of variance, Pearson correlation coefficient) data. A significance level of 5% was considered.

Result: 312 male and female students with an average age of 21.57 ± 2.07 participated in this research. Based on independent t-test and one-way analysis of variance, a statistically significant difference was observed between anxiety of corona with gender, educational level, place of residence, having symptoms of the disease, and drop in grade point average during corona (p-value0.05). The results of the Pearson correlation coefficient test also showed a statistically significant and inverse relationship between quality of life and stress, depression, and anxiety (p-value0.01).

Conclusion: Quality of life was shown to have a significant direct relationship with self-efficacy and a significant negative relationship with stress, depression, and anxiety. These results can provide a source for universities and all educational institutions to control the adverse effects of these psychological disorders and improve students' quality of life.

G-1437

Peer support interventions and related outcomes in patients with myocardial infarction: A systematic review

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Introduction: Myocardial infarction patients are at risk of functional impairment, lower quality of life and social isolation. Systematic reviews have shown mixed results for a variety of peer support interventions to improve health-related outcomes in myocardial infarction patients. The aim of the study was to determine whether peer support interventions improves symptoms terms of psychological and behavioral health outcomes commonly experienced by patients after myocardial infarction.

Method & material: In this systematic review international databases (PubMed, Science Direct, Google Scholar, Web of Science, and Scopus) were searched from the beginning of databases through March 2023 to identify all eligible papers concerning peer support affecting outcomes among myocardial infarction. In this study the inclusion criteria were: (1) published in English; (2) study design consisted of an intervention study (RCT); peer education intervention related, all patients experienced MI. References of all studies were manually checked to ensure the inclusion of relevant studies.

Result: Seven clinical trial studies that were published in English, and the Jadad scores ranged from were between 3 and 4 out of 5 points, were included in the final review. In the final twelve studies, the age range of the participants was between 30 and 80 years. There were two types of peer support interventions: face-to-face and telephone. The results showed that peer education can have a positive effect on depression and stress (each in one study out of two studies), anxiety, quality of life, quality of sexual life, self-care, and medication adherence. Also, the use of peer support had no significant effect on social support, tolerance, comfort, satisfaction, pain levels, general health, and mental health.

Conclusion: Considering the various complications of myocardial infarction and the need for training in these patients, it seems that peer training can be used as a complementary method to reduce psychological complications and improve behavioral outcomes. According to the results and the quality of the evidence, there is a need for more research with a precise and clear design and a complete report of the intervention.

G-1438

The effect of maternal relaxation by benson technique on duration of labor and oxytocin consumption

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Introduction: Childbirth is a physiological phenomenon that should be carried out naturally and without intervention. Unnecessary interventions are associated with adverse consequences for the mother. This study was conducted with the aim of the effect of relaxation on the duration of labor and the use of oxytocin.

Method & material: This clinical trial study was conducted on 60 available pregnant mothers who had referred to the health centers of Kashmer city using permutation blocks of 4 in a group of 30 people. The data collection tool was the demographic and delivery information form and the newborn information form. Pregnant mothers with the conditions of completing the consent form, no history of illness according to the health and hospital records, singleton, cephalic presentation, full-term fetus, no substance abuse, no history. Infertility, the absence of fetal abnormalities were included in the study and were trained for 12 weeks and once a day in health centers. After entering the hospital, the case group was encouraged to do sedation and its frequency was also recorded. The control group received only the routine care of the delivery room, and in the two groups, the duration of labor and the use of oxytocin were measured.

Result: There was a statistically significant difference between the length of the first stage of labor (p=0.01) and the length of the second stage of labor (P=0.006) and the use of oxytocin (P=0.01) in the two groups, so that in the case group, the length decreased The duration of labor and the use of oxytocin.

Conclusion: Performing the Benson relaxation technique by the mother during labor shortened the length of the first and second stages of labor and reduced the amount of oxytocin consumption, which can be recommended to health care centers as an effective method for improving labor conditions.

G-1440

Evaluation of the Anti-Toxoplasmagondii Efficacy, and Cytotoxicity of Sea Cucumber Extract and Titanium Dioxide Nanoparticles

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Introduction: The combination treatment of sulfadiazine and pyrimethamine can effectively treat toxoplasmosis. However, there are significant side effects and toxicities in both compounds. Therefore, there is an urgent need to discover new anti-toxoplasma drugs with high effectiveness and fewer side effects. The aim of this study was to assess the anti-toxoplasma effect of sea cucumber (Holothuria leucospilota) extract and titanium dioxide nanoparticles (TiO2NP) on the growth and cell death of Toxoplasma gondii(T. gondii) tachyzoites in vitro and in vivo.

Method & material: The potential cytotoxic effects of TiO2NPs and sea cucumber extract on T. gondii tachyzoites were investigated with the utilization of the MTT assay. Serum levels of TNF-α and IL-5 were measured, alongside liver enzymes (ALT, ALP and AST).

Result: The results of our study showed the in vivo and in vitro anti-toxoplasmic activity of TiO2NPs and sea cucumber extract via inhibiting the multiplication and invasion of T. gondii tachyzoite. In addition, a considerable increase in TNF-α production was observed in mice that received combined treatment. Nevertheless, in IL-5 levels No significant increase in TiO2NPs and sea cucumber extract-treated mice. The findings of the study also showed a considerable increase (P 0.05) in the levels of ALT, AST, and ALP in the groups that were treated with TiO2NPs and sea cucumber extract. but No significant increase was detected in the control group.

Conclusion: The anti-toxoplasma activity compounds of TiO2NPs and sea cucumber extract showed that simultaneous use of compounds of TiO2NPs and sea cucumber extract can be promising to develop an effective drug for the treatment of toxoplasmosis.

G-1441

Applications of artificial intelligence in the management of chronic myeloid leukemia: a systematic review

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Introduction: Leukemia is a group of four types of blood cancer that can ultimately lead to fatal infection and premature death. A precise diagnosis of leukemia requires a multitude of tests and clinical evidence, which is time-consuming. Nowadays, machine learning and deep learning algorithms can aid physicians in diagnosing the disease in its early stages [1]. The present study is conducted to explore the application of artificial intelligence and its algorithms in managing chronic myeloid leukemia.

Method & material: The present systematic review was conducted until April 24, 2023, by searching for relevant keywords in PubMed, Scopus, and Web of Science databases. The first group of keywords included chronic myelocytic leukemia, chronic myelogenous leukemia, Philadelphia-positive myeloid leukemia, and Ph1-positive myelogenous leukemia; and the second group of keywords included decision support techniques, data mining, and artificial intelligence. The inclusion criteria included original research articles that investigated the use of artificial intelligence and its algorithms in the management of chronic myeloid leukemia. The title, abstract and full text of the articles were reviewed by three researchers independently, and finally the data from related articles were collected according to the aim of the study.

Result: Generally, 12 articles were included in the study. The findings revealed that artificial intelligence has been used in the management of chronic myeloid leukemia in the fields of tumor diagnosis and classification (n=11), prediction, and prognosis (n=1). The methods of artificial intelligence used in these studies include different neural network methods (n=6), support vector machine (SVM) (n=5), various statistical algorithms, including regression (n=4), various decision tree and random forest algorithms (n=3), nearest neighbor method (n=1), and generative adversarial network method (n=1).

Conclusion: The results showed that the most application of artificial intelligence in the management of chronic myeloid leukemia was in the diagnostic field. Among the algorithms used in the management of this disease, only one study used the method of adversarial generative networks, which focused on making a proper diagnosis of leukemia in the blood smear, and an accuracy of 99.8 percent was obtained from it. In other studies, the Support Vector Machine (SVM), which has been used more often, has been used and the highest accuracy has been obtained. Furthermore, the evaluation of artificial intelligence algorithms in the obtained studies shows acceptable results, although improving the accuracy and further research in order to accurately and early diagnose this disease and distinguish it from other types is necessary and inevitable.

G-1446

Nanotechnology in stem cells imaging: An In-Vitro systematic review

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Introduction: Although stem cells hold great potential for the treatment of many injuries and diseases, several obstacles must be overcome before their therapeutic application can be realized. These include the development of advanced techniques to understand and control novel methods to track and guide stem cells. The application of nanotechnology to stem cell biology would be able to address those challenges and have shown great promise for application in regenerative medicine.how in vivo molecular imaging has helped identify barriers to clinical translation and potential strategies that may contribute to successful transplantation and improved outcomes.We attempted in this systematic review to collect data, analyze them, and report results on the effect of nanomaterials on neuronal differentiation of embryonic stem cells.We attempted in this systematic review to collect data, analyze them, and report results on the nanotechnology in stem cells imaging.

Method & material: International databases like PubMed, Scopus and ISI Web of Science were searched for available articles on the nanotechnology in stem cells imaging. (up to March 2023). After that, screening (by title, abstract, and full text), selection, and data extraction were performed. Also, the quality assessment was conducted based on the STROBE checklist.

Result: In total, 6332 articles were identified and assessed, and then only 40 articles were found eligible to be included. 38 studies used nanoparticles, 1 used nanoplate and 1 used nanolayer. 1 studies reported the negative effect of nanomaterials on cell viability.

Conclusion: stem cells imaging is crucial in regenerative medicine. Nanomaterials with different characteristics, particularly those Contrast agent, Cell-labeling efficiency and non-cytotoxic, have much potential in Cell tracking. These findings indicate a new understanding of cell labeling and the ability to track or image cells.

G-1447

Investigation of maternal and neonatal outcomes, clinical symptoms and biometric indicators in pregnant women with gestational hypertension and pre-eclampsia referred to Hajer Hospital of Shahrekord in 1400

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Introduction: high blood pressure during pregnancy, pre-eclampsia and eclampsia is one of the most dangerous complications during pregnancy which lead to death and irreparable maternal, fetal and neonatal complication. So that Preeclampsia is the third rank of maternal death in the world and the second rank of maternal death in developing countries including Iran. Therefore, the researchers decided to conduct a study with the aim of determining maternal and neonatal outcomes, clinical symptoms and biometric indicators in pregnant women suffering from gestational hypertension and preeclampsia.

Method & material: This present research was a case-control study on pregnant primiparous women admitted to educational-therapeutic Hajar hospital of Shahrekord in 1400. 50 pregnant mothers with pre-eclampsia and 51pregnant mothers without pre-eclampsia were selected by easy sampling method. The control and case groups were matched in terms of maternal age, gestational age, and the presence of underlying diseases. The tools of data collection included a questionnaire of personal characteristics, clinical symptoms, and maternal and newborn outcomes through interviewing the mother and reviewing the case file. In order to comply with the ethical principles, the objectives of the research were explained for all the samples. SPSS-18 software was used for analyze data. Descriptive and analytical tests such as independent t test and chi test were used, and the significance level was 0.05.

Result: 82% of affected women had cesarean delivery. There was a significant difference in delivery between the two groups (P=0.003).Resuscitation, in newborns, the type of feeding of newborns after delivery, and the mean and standard deviation of Apgar score of newborns immediately and5 minutes after delivery in the two groups were not significantly different from each other. The mean and standard deviation of weight and body mass index of the two groups were significantly different from each other.

Conclusion: The results of the mentioned study about maternal and newborn outcomes can be used in the prenatal care of pregnant women with gestational hypertension and preeclampsia and in the care of their newborns in hospitals, comprehensive health centers and in national policy making.

G-1451

Investigating the effects of chronic partial sleep deprivation and sleep pattern disturbance on liver function in rats

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Introduction: Research has shown that chronic sleep deprivation or disturbances in sleep patterns can have detrimental metabolic effects. However, the effects of chronic partial sleep deprivation (CPSD) and sleep pattern disturbance (SPD) on liver function have been less studied. In the present study, we aimed to investigate whether CPSD and SPD can influence hepatic function in rats.

Method & material: Thirty-two male Wistar rats were randomly divided into four groups (n=8 each): control, SPD, CPSD, and SPD+CPSD. The CPSD was induced by a sleep deprivation machine for four hours per day and SPD was induced by disturbance in the light/dark cycle as it was set at 3.5h light: 3.5h dark (accordingly the normal daily pattern of light and dark cycle was continuously changed). After four weeks, all animals were sacrificed and blood samples and liver were collected.

Result: Compared to the control group, only the fasting blood glucose levels in the CPSD and SPD+CPSD groups were significantly elevated (p=0.027 and p=0.001, respectively). No statistically differences in liver enzymes, lipid profile and the hepatic levels of lipid peroxidation and superoxide dismutase were found between the studied groups. The liver histopathological examination also revealed no significant difference between groups.

Conclusion: Based on the results of the present study we can conclude that CPSD can negatively influence glucose metabolism and SPD exacerbates the effect. However, at the studied period (4 weeks) SPD and CPSD could not alter hepatic structure and function. Future research should focus more CPSD effects on glucose metabolism mainly in diabetic patients.

G-1452

Effects of Chronic Partial Sleep Deprivation and Sleep Pattern Disturbance on Male Reproductive Function: An Experimental Study in Rats

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Introduction: Research indicates that inadequate sleep and irregular sleep patterns associated with shift work can disrupt the body's natural circadian rhythm and interfere with normal hormonal regulation, leading to alterations in reproductive hormone levels and disturbances in spermatogenesis. In the present study, we aimed to investigate whether chronic partial sleep deprivation (CPSD) and sleep pattern disturbance (SPD) can influence male reproductive function in rats.

Method & material: Thirty-two male Wistar rats were randomly allocated into four groups, each consisting of 8 rats: control, SPD, CPSD, and SPD+CPSD. The CPSD was induced by a sleep deprivation machine for four hours per day, while the SPD was induced by disturbance in the light/dark cycle as it was set at 3.5 hours light: 3.5 hours dark (accordingly the normal daily pattern of light and dark cycle was continuously changed). After four weeks, all animals were sacrificed, epididymal sperms were counted, and testis tissues and blood samples were collected for histopathologic and biochemical analyses.

Result: Compared to the control group, plasma testosterone, sperm motility, and sperm viability were significantly decreased in the SPD+CPSD group. However, no significant differences in testis morphology, sperm count, testicular lipid peroxidation, and superoxide dismutase were found between the studied groups.

Conclusion: These findings demonstrate that the negative effects of CPSD and SPD observed in rats are reversible and don't influence testis structure. Future research should focus on long-term CPSD effects on the reproductive system.

G-1453

Effect of Chamomile Consumption on Anxiety

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Introduction: Anxiety disorder is a common psychiatric condition that affects 3.6% of adults worldwide. Many individuals with anxiety symptoms turn to complementary and alternative medicine treatments, which have become increasingly popular in recent decades. Our aim for this review study is to investigate the sedative effects of chamomile as a traditional herbal medicine on anxiety.

Method & material: We conducted a search on Google Scholar and PubMed until May 2023. Out of the 55 articles found, 11 clinical trial studies that examined the effects of chamomile tea or oral extract on anxiety were selected after excluding irrelevant studies. Both researchers independently performed all steps, including the screening process of articles and data extraction.

Result: Among the 11 selected articles, 10 studies provided strong evidence for the effectiveness of chamomile in reducing anxiety symptoms. Only one study did not observe a significant effect. In addition to alleviating symptoms of generalized anxiety disorder, some studies reported improvements in mental health. Furthermore, in one clinical trial, a reduction in body weight and mean arterial blood pressure was also observed. Although the exact mode of anxiolytic action of chamomile has not been well defined, the evidence suggests that the active compounds in chamomile, including Apigenin, may create anti-anxiety activity by influencing neurotransmitter pathways and modulating the function of the hypothalamus-pituitary-adrenocortical axis.

Conclusion: This systematic review demonstrates that chamomile has anti-anxiety properties. Additionally, due to the side effects associated with drugs used in the treatment of anxiety disorders, such as sexual dysfunctions, weight gain, and digestive problems, which often lead to therapy discontinuation, using chamomile can be an effective and safe treatment approach.

G-1455

The relationship between life satisfaction with spiritual intelligence and internet addiction in medical science students

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Introduction: Internet addiction is a problem and inconsistent pattern of Internet use that leads to cognitive, educational, and occupational problems in individuals' lives. Therefore, the present study was conducted to determine the relationship between life satisfaction with spiritual intelligence, and internet addiction among medical science students.

Method & material: This cross-sectional study was conducted with the participation of 238 students of Shahroud University of Medical Sciences, Iran in 2023. Data collection tools included a demographic profile form, King's spiritual intelligence questionnaire, and Diener's life satisfaction questionnaire. The inclusion criterion was completing at least one academic semester and the exclusion criteria were experiencing severe stress in the last two months before the study and psychological disorders (through a demographic questionnaire) and also neuroleptic medication. Eligible participants were assessed by a stratified sampling method. collected information; They were analyzed using descriptive and inferential statistics (multivariate linear regression analysis).

Result: The results showed that for each unit increase in interest in the field, the life satisfaction scores increase by 0.57 units, and for each unit increase in spiritual intelligence, the life satisfaction decreases to 0.12 units. Also, the regression model showed that people who have a monthly income equal to enough reported 2.94 units of higher life satisfaction than people who have less than enough income.

Conclusion: According to the results obtained in this study, with increasing interest in the field, life satisfaction increases. In this regard, it is recommended to take necessary measures (such as holding workshops and webinars to introduce and express the fields and challenges in each field).

G-1456

Early Diagnosis and Management of Drug-Induced Thrombocytopenia in Patients with Major Depressive Disorder: A case report

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Introduction: Drug-induced Thrombocytopenia (DIT) is a rare but potentially life-threatening condition that occurs when certain medications trigger an immune response that destroys platelets in peripheral blood. The aim of this report was to highlight the importance of early diagnosis and appropriate management of DIT in patient with Major Depressive Disorder (MDD) treated with Aripiprazole, Olanzapine, Lorazepam, and sodium valproate.

Case presentation:

Result: We present a case of a 39-year-old female with MDD who developed bleeding after brushing her teeth. Her medical history included use of Aripiprazole, Olanzapine, Lorazepam, and sodium valproate. The platelet count results in the two CBC tests ten days apart were 40,000/mm3 and 29,000/mm3, and simultaneous symptoms of petechiae and purpura appeared in the legs and left hand. Suspecting immune thrombocytopenic purpura (ITP), the physician started treatment with dexamethasone. After examining the PBS, no evidence of schistocytes or giant platelets was observed. Consultation with the psychiatrist was done to change the medications; Aripiprazole, Lorazepam and sodium valproate were stopped while bipyridine, fluoxetine and clonazepam were replaced. The CBC test was repeated, and the platelet count was128,000/mm3. The patient's condition improved significantly after appropriate management. Finally, (Aripiprazole, Lorazepam and Sodium Valproate)-induced Thrombocytopenia was diagnosed.

Conclusion: This case report highlights the importance of the early diagnosis and appropriate management of DIT in patients with MDD. It also emphasizes the need for close collaboration between psychiatrists and hematologists to ensure proper care and correct prescription of medicines for patients.

G-1457

The evaluation of relationship between surgical technologists; clinical competency and job stress in Corona pandemic in hospital affiliated to Isfahan university of medical sciences in 2021

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Introduction: Recently, the newest member of the corona virus family (Covid-19) has spread in the world and has caused acute and severe respiratory symptoms in humans. The spread of this virus causes physical and mental effects, including creating stress on the medical staff and greatly affects the quality of their clinical performance. Therefore, the present study was conducted with the aim of determining the relationship between occupational stress and clinical competence of operating room technologists during the corona pandemic.

Method & material: In this descriptive-correlational research, which was conducted cross-sectionals during the year 1400, 190 operating room technologists working in Isfahan teaching hospitals were selected and included in the study through random sampling. The data collection tool included two standard clinical competency questionnaires for operating room technologists, along with demographic information and SPIO job stress questionnaire. The level of clinical competence of nurses was evaluated and its relationship with occupational stress was determined in the conditions of the corona pandemic. Data analysis was done using SPSS version 22 software and based on descriptive statistics.

Result: Most of the operating room technologists (72.2%) had moderate job stress during the corona pandemic. 81.9% of the personnel had good clinical qualification. Mann-Whitney test showed a significant difference in clinical competence in terms of history of corona infection (p0.05). The personnel who do not have a history of corona infection stated that they have higher clinical competence. Pearson's correlation test showed that there is no significant difference between job stress and clinical competence during the corona pandemic. Also, there is an inverse relationship between age-experience-term of service in Corona conditions and job stress. In this way, people who had served for a longer time in the Corona situation, had less stress. Also, the personnel who have this job in another hospital stated that they have higher clinical competence. No significant difference was observed in job stress in terms of the educational qualification of the personnel.

Conclusion: Based on the results of the present study, the level of clinical competence of surgical technologists in educational-therapeutic centers of Isfahan University of Medical Sciences was at a good level. But the personnel mentioned high stress during the corona pandemic, although the occupational stress of the operating room technologists had no significant relationship with their clinical competence, but the history of corona has reduced the clinical competence of the personnel.

G-1458

Evaluation of specialized knowledge of personnel and the level of observance of care standards before, during and after surgery of patients undergoing laparoscopic bariatric surgery in hospitals affiliated to Isfahan University of Medical Sciences in 1401

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Introduction: Today, morbid obesity has become one of the concerns of the medical world. Operating room nurses play an important role in the quality of providing care to patients undergoing bariatric surgery. For example, if the care standards are followed in proper positioning and accurate padding and correct closing of the patient, many problems such as pressure sores, tissue necrosis, the risk of the patient falling, etc. can be avoided. The purpose of this study is to investigate the level of compliance with care standards before, during and after bariatric surgery

Method & material: This research is a cross-sectional descriptive study. this study was conducted in the operating rooms of selected hospitals of Isfahan University of Medical Sciences. Then, the level of compliance with the standards of care of patients undergoing laparoscopic bariatric surgery is measured by the checklist made by the researcher. The aforementioned checklist consists of five areas (demographic information, patient care standards during admission, before surgery, during surgery and after surgery). The checklist has a score of zero (yes) and one (no). Also, in order to measure the specialized knowledge of the operating room personnel, a researcher-made questionnaire will be used, which includes 43 true and false questions and will be in four areas of patient care knowledge in the stages of admission, before surgery, during surgery, and after surgery. SPSS version 20 software is used to analyze the research data.

Result: In this research, 93 operating room nurses were included in the study. The results of the study showed that the average score of compliance with care standards by operating room personnel in laparoscopic bariatric surgery was 3.03 before admission, 5.18 before, 2.38 during and 0.93 after surgery. The standard deviation and average of specialized knowledge of personnel in the field of laparoscopic bariatric surgery care was 29.45 ± 6.17. Pearson's quantitative correlation test showed that there is no significant relationship between compliance with standards and age and work experience, but there is a significant inverse relationship between specialized knowledge and age, which means that specialized knowledge decreases with increasing age and score, although there is a significant relationship between experience Work and specialized knowledge were not found.

Conclusion: The result of our study showed that nurses working in operating rooms do not have good knowledge about the principles of laparoscopic bariatric surgery. Also, they do not follow the necessary care standards that are required for this surgery.

G-1459

Evaluation of platelet-derived procoagulant microparticles in Covid-19 patients with disseminated intravascular coagulopathy

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Introduction: The discovery of new biomarkers in critically ill patients with Covid-19 can play an important role in the diagnosis, prognosis or even treatment of this disease. In the current study, the level of platelet derived MPs (PMPs) as coagulant new-biomarker was evaluated in patients with covid 19 who suffered from disseminated intravascular coagulopathy (DIC).

Method & material: In this case-control study, 93 patients with covid-19 and 25 healthy individuals were sampled after obtaining written consent. Determination and counting of MPs using CD61 and Annexin-V conjugated markers and the coagulant activity of MPs was also determined based on ELISA-based procoagulant activity assay. The hemostasis status of the patients was evaluated by prothrombin time (PT) and partial thromboplastin time (PTT) tests. In order to evaluate the fibrinolytic system, D-Dimer level was measured. Complete blood count (CBC) evaluation was also done using sysmax hematology analyzer.

Result: Finding showed that there was a statistically significant difference in the amount of PT,PTT, fibrinogen, D-Dimer between patients and healthy subjects (p0.01). Flow cytometry results showed that most MPs originate from platelets (CD61) and their levels in the non-surviving patients 'group were significantly higher than the surviving patients (p0.001) and the control group(p0.001). Also, the procoagulant activity of MPs in non-surviving patients was significantly higher than that of surviving patients (p0.001), and the control group (p0.001) and was correlated with the number of Annexin-V+ MPs (p0.001).

Conclusion: The function of coagulation system in patients with covid 19 was significantly increased compared to healthy people. The measurement of coagulation variables can be helpful in determining the prognosis of critically ill patients with Covid-19.

G-1461

The effects of diets prescribed before bariatric surgery on postoperative outcomes, A systematic review

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Introduction: Bariatric surgery is considered as an effective treatment to promote long-term weight loss and reduce morbidity and mortality in patients with severe obesity. Despite the overall low mortality rate, intra- and post-operative complications remain quite common. Overweight or obesity is considered as a known risk factor for poor surgical outcomes. Hence different low calorie- (LCD) and very low calorie diets (VLCD) are being used for the induction of a pre-operative weight loss. Studies are inconclusive regarding effectiveness and the best approach to apply pre-operative diets. Therefore, in this review, different nutritional managements used in obese patients before bariatric surgery and their effectiveness are discussed.

Method & material: The search covered four literature databases (MEDLINE, Web of Science, Scopus and PubMed) and applied Boolean combinations of different search terms. Published electronic databases that evaluated surgical outcomes of preoperative diets until November 2022 were included in the study. Inclusion criteria were prospective cohort or randomized controlled studies that investigated the effects of weight-loss diets on postoperative outcomes in adults with obesity awaiting surgery. Participants with cancer were excluded. The initial search yielded 521 articles. After screening abstracts and full texts, twenty articles were included in the study.

Result: The types of regimens used included LCDs/VLCDs with the composition of regular, high protein, immunonutrition, soluble fiber, probiotic, ketogenic, liquid and/or low carbohydrate. Ten out of twenty studies reported better peri-operative weight loss and reducing Visceral Fat in comparison with regular regimens, while two studies reported no effect on weight loss. Six out of twelve studies reported lower post-operative complications (shorter surgery and hospitalization time, improved liver histology and lower values of liver enzymes). Additional reported benefits included higher quality of life (one study), better patient compliance and acceptability (two studies) and better post-operative hemoglobin levels (one study). Five out of twenty studies reported no effects on weight reduction, post-operative complications or liver volume after surgery.

Conclusion: Multiple randomized controlled trials with better-defined dietary approaches and common surgical outcomes are required to establish impact on post-operative weight loss and complications

G-1462

Effect of transition COVID-19 pandemic on Nurses' Professional Self-concept

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Introduction: The most important challenge right now is the COVID-19 pandemic. Professional Self-concept is thought to be a predictor and mediator of health outcomes, and knowledge related to nurses' self-concept is also very important for continued professional development and growth. Undoubtedly the COVID-19 pandemic has been a major burden on nursing staff, that can lead to enhance the nurses' professional self-concept or decrease the job satisfaction and therefore lead to staff shortage. Therefore, we decided to conduct a study aimed at determining the impact of the COVID-19 pandemic on nurses' professional self-concept.

Method & material: This was an analytical case-control study. Participants consisted of 220 nurses of Ardabil government hospitals, which were divided into three groups: case (nurses working in the covid ward and ICU covid) and control (nurses working in other non-covid wards). The data collection instrument consists of a two-part questionnaire (Socio-demographic and Nurses' Professional Self-Concept Questionnaire made by Cowin). Data analysis was done using SPSS software version 16 through descriptive and inferential statistics such as independent t-test, One-Way ANOVA and post hoc tests. The level of significance was considered at P 0.05.

Result: 220 subjects (73 Nurses of ICU Covid, 73 Nurses of Covid wards and 74 Nurses of Non Covid wards as a controls) were analyzed in this research. The results of our study indicated that nurses of ICU Covid and Covid wards had moderate level of professional self-concept (72-44), but Nurses of Non Covid wards had low level of self-concept (36-72). Also comparing the three groups with One-Way ANOVA test, a statistically significant difference was observed between the groups (P0.05).

Conclusion: The results of the present study showed that there is a significant difference between nurses working in covid and non-covid wards in terms of the level of professional self-concept and the more care experience, the more self-concept. Therefore, maintaining the position of the nursing profession resulting from the transition from the crisis of Covid- 19, changing the educational planning in order to be more prepared for similar conditions in nursing education and providing in-service training by special nurses to inexperienced nurses seems necessary.

G-1463

A meta–analysis on the associations of fat intake and fatty acid intake with the risk of colorectal cancer

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Introduction: Colorectal cancer is one of the most prevalent cancers in adults and a leading cause of death in this age group. The incidence rate of colorectal cancer is increasing at an alarming rate. Epidemiological studies have shown that colorectal cancer is the third most common cancer and the second cause of cancer death. Approximately 935,000 deaths due to colorectal cancer were recorded in 2020 which is estimated to be high. Also, colorectal cancer put heavy burdens on patients and the health care system. Therefore, it is necessary to find contributing factors to the etiology of colorectal cancer.

Method & material: We carried out a comprehensive literature search in the online databases of PubMed, Scopus, and Web of Science, up to August 2022. No restriction was made on the time of publications and language. All search results were included in Endnote software, and then, duplicated papers were removed. We excluded letters, comments, short communications, reviews, meta-analyses, ecological studies, and animal studies. The data were included in a previously designed Excel form. The quality of studies included in the current meta-analysis was assessed using the Newcastle Ottawa Scale (NOS), designed for prospective cohort studies. We included the RRs and 95% CIs of colorectal cancer for the comparison between the highest and lowest intakes of dietary fat in the meta-analysis.

Result: In total, 21 prospective cohort studies, recruiting 2,311,737 men and women, were included in the systematic review and meta-analysis. During the follow-up periods, a total of 21,125 cases of colorectal cancer who were over 18 years old were recorded. The comparison between the highest and lowest intakes of total SFA intake revealed the summary relative risk (RR) of 0.91 (95% CI: 0.85–0.99) for colorectal cancer, 0.86 (95% CI: 0.75-0.98) for colon cancer and no significant relationships were found in other associations.

Conclusion: In the current meta-analysis, we found that a higher intake of SFA was significantly associated with a 9% and 14% lower risk of colorectal cancer and colon cancer, respectively. In conclusion, dietary SFA intake has a protective association with colorectal and colon cancers. . Future meta-analyses should determine the link between individual SFAs and colorectal cancer. In addition, the associations between dietary fat intake and different outcomes of patients with colorectal cancer (i.e. relapse after treatment and mortality) should be also considered.

G-1464

Successful treatment of fungal ball–associated tinea capitis in a healthy infant: An unusual presentation

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Introduction: Tinea capitis is the scalp fungal infection that most often affects early school children. The presentation of fungal ball in this disease is extremely rare. Herein, we describe a 7-month-old girl with a fungal ball associated with tinea capitis with a scalp mass adjacent to the scalp dermatophytosis.

Method & material: A febrile patient presented with a large area of partial hair loss, scattered pustules on the occipital, and a painful, erythematous ball on the left retro-auricular area. Scalp scraping via direct microscopic examination of the hair loss area with potassium hydroxide (KOH 10%) was performed. With clinical suspicion of abscess formation in the bulging area, ultrasonography was also done.

Result: The result of the scalp scraping examination of the hair loss area was positive for hyphae and spores. Ultrasonography showed a possible abscess formation. According to the clinical and laboratory findings, scalp dermatophytosis associated with fungal ball formation was diagnosed. She was successfully treated with oral terbinafine, intravenous clindamycin, ketoconazole cream, and Ketoconazole shampoo. The patient also underwent incision and drainage of the abscess.

Conclusion: Presentation of tinea capitis with fungal mass in an infant is extremely rare. To our knowledge, this is the first case of fungal ball in a healthy infant with tinea capitis. Tinea capitis with and without abscess formation is prone to be misdiagnosed in infants and should be considered as a differential diagnosis of inflammatory hair loss in infants and toddlers as well as school-aged children.

G-1466

Diagnostic Accuracy of Chest Computed Tomography (CT) in Detecting COVID-19 Pneumonia: An Umbrella Review

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Introduction: Since the novel coronavirus disease 2019 (COVID-19) outbreak, the role of chest computed tomography (CT) for diagnosis of the disease has garnered increasing attention. Till date, more than 689 million cases of COVID-19 have been identified worldwide, many of whom were subjected to CT scanning. Several regulatory bodies have challenged routine use of chest CT for detecting COVID-19; however, evidence points to overuse and lack of adherence to evidence-based practice. Since the beginning of the pandemic to date, numerous primary studies and several systematic reviews have focused on the diagnostic accuracy of chest CT in detecting COVID-19. The aim of this study was to assess this challenging topic through an umbrella review of the previously published systematic reviews.

Method & material: The search results yielded a total of 2848 studies. After elimination of the duplicate and irrelevant studies, 19 systematic reviews originated from 150 primary studies and 186,687 subjects met our inclusion criteria. The pooled sensitivity and specificity of chest CT in detecting COVID-19 was estimated at 61-100% and 25-80%, respectively. Nearly, 15–50% of the COVID-19 cases never develop lung involvement on chest CT. In studies that focused on asymptomatic subjects, sensitivity continued to decline. Across the studies, sensitivity reports were largely homogeneous while specificity was heterogeneous. The included studies had methodological quality issues and mainly had high or potential risk of bias, suggesting that the reported sensitivity is probably overestimated.

Result: We searched the PubMed/MEDLINE from December, 1, 2019 to June, 1, 2023 in English literatures. The following search terms were used for database searching: "computed tomography", "CT", "chest", "lung", "thoracic", "diagnostic", "accuracy", "sensitivity", "specificity", "coronavirus", "COVID-19" and "pneumonia". Search results were filtered to systematic reviews. After assessing each study against specific inclusion/exclusion criteria, two reviewers assessed eligibility of the studies for inclusion and data extraction.

Conclusion: Evidence supports high sensitivity and relatively low specificity of chest CT in detecting COVID-19. A normal chest CT, does not rule out COVID-19 infection. A chest CT with lung involvement consistent with the disease also does not necessarily confirm COVID-19, since CT findings overlap with several other infections such as influenza, H1N1, SARS and MERS, which may lead to false-positive results. Chest CT provides valuable diagnostic information for managing COVID-19 and is clinically indicated in some situations but its routine use or use as a primary diagnostic tool for COVID-19 subjects is unjustifiable.

G-1467

Bacterial vaccines for older adults: challenges and opportunities for immunization across the life-course; A systematic review

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Introduction: Preventing and treating bacterial infections is a major 21st-century challenge. Vaccination reduces infection costs. Rather than childhood vaccines, aging vaccines are being developed. WHO also prioritizes protecting almost 2 billion elderly individuals by 2050. This study examined elderly immunization challenges and prospective.

Method & material: The protocol of this study was designed based on PRIMSA guidelines, The following databases were searched for published and unpublished studies up to 1 May: Web of Science, PubMed, Google Scholar, and Cochrane. The following terms were used to generate a search: "bacterial vaccines AND older adults", "bacterial infections AND immunosenescence", "immunization strategies AND aging", "vaccine efficacy AND elderly" and "bacterial diseases AND life-course immunization". This study included all English language studies that report the efficacy, safety, immunogenicity, or cost-effectiveness of bacterial vaccines for older adults. The study excluded articles without reporting any of these outcomes. Study quality was assessed using the appraisal tool: CASP Systematic Review Checklist (ROBIS). Independently, two researchers searched and assessed studies at all stages.

Result: In the present analysis, the data of 41 studies containing from 15 different countries were evaluated. Because of age-related reductions in immune function, older adults are more vulnerable to bacterial infections. A bacterial immunization can prevent disease as well as reduce mortalities and morbidities. However, there are several issues and opportunities for immunization throughout the life cycle. One concern is that elderly persons do not receive recommended vaccines, which could be due to a lack of knowledge, access, or motivation. In older adults, some immunizations have poor immunogenicity or efficacy, which requires higher doses, booster shots, or novel formulations. An option is developing vaccines that target specific pathogens that cause significant illnesses in the elderly, like pneumococcal conjugate vaccines. Another option is to combine vaccination with other preventative measures such as a healthy lifestyle, screening, and chronic condition therapy. As a result, older adults can receive stronger and longer-lasting immune

Conclusion: Due to the need to vaccinate elderly people and accompanying challenges, such as adverse effects and immunogenicity issues, researchers are exploring the efficacy of vaccinations for all ages and immune systems.

G-1469

A novel method of nonsurgical therapy for Shunted Hydrocephalus: A Case Report

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Introduction: Hydrocephalus is a neurological disorder characterized by the abnormal accumulation of cerebrospinal fluid in the brain ventricles, which can cause increased intracranial pressure and damage to brain tissue. Surgical intervention is the mainstay of treatment for hydrocephalus, but it can be associated with various complications such as infection, blockage, and malfunction.

Method & material: Patient Report: A 40-year-old woman was admitted to Hazrat-Abolfazl Hospital with severe headaches, hypertension, blurred vision, weakness, lethargy, nausea, and sensitivity to sound. On the basis of clinical assessment and imaging findings, the patient was diagnosed with shunted hydrocephalus with resurgical indications. Interestingly, the patient had a history of shunt surgery at 1 year of age, and she was unaware of it until now. the medical team recommended that the patient be transferred to the Ghaem Hospital in Mashhad and, if necessary, undergo surgery. During the new hospitalization, she underwent careful clinical examination and supportive treatment. Evidence showed that the brain shunt pump was still functioning properly after 40 years and did not require replacement. The patient was advised to perform a tactile regimen consisting of fifteen massages per day on the VP shunt pump, which had been installed subcutaneously.

Result: This case report presents a nonsurgical approach for the treatment of ventriculoperitoneal(VP) shunt hydrocephalus through regular tactile stimulation of the shunt pump. The patient showed significant improvement in symptoms and no shunt-related complications during the 6-month follow-up period.

Conclusion: This alternative treatment approach highlights the potential benefits of noninvasive interventions for hydrocephalus patients, particularly in cases where traditional surgical methods may pose significant risks or complications. It is necessary to conduct additional research to assess the safety and effectiveness of this approach before it can be accepted as a widely used treatment option.

G-1470

Relationship Between COVID-19 and sodium balance

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Introduction: The SARS-COV-19 virus caused an epidemic of coronavirus 2019 (COVID-19) disease throughout the world. Because of the prevalence of infections and disorders and the involvement of various organs in this disease, the importance of recognizing these disorders and developing treatment methods for them is significant. Studies and reports have demonstrated that disorders of the body's electrolytes, especially hyponatremia and hypernatremia, are most common.

Method & material: Relevant literatures were accessed via World Health Organization (WHO), Google Scholar, PubMed, Scopus, and Web of Science to give updated information on the prevalence of the coronavirus 2019 (COVID-19) disease, prevalence of infections and disorders and the involvement of various organs in this disease, hyponatremia and hypernatremia and their role in COVID-19 disease, the importance of sodium and maintaining its balance in COVID-19 disease.

Result: According to various reports, on average, about 24-35% of patients with SARS-COV-2 infection have hyponatremia, and about 5-8% of patients have hypernatremia. Research has demonstrated the roles of hyponatremia and hypernatremia and their association with severe infection and severe COVID-19 disease. On average, 34% of hyponatremia COVID-19 patients either require intensive care and mechanical ventilation or expire. Hypernatremia has been observed in 6-26% of patients admitted to the intensive care unit (ICU). Furthermore, refractory hypovolemic hypernatremia and treatment-resistant hypernatremia have been observed during treatment of patients with severe COVID-19.

Although the most prominent manifestations of COVID-19 are pulmonary, evidence proves that other organs are also directly affected by SARS-COV-2 infection. The coronavirus has been illustrated to enter cells through the angiotensin-converting enzyme-2 (ACE2). In addition to the lungs, this enzyme is expressed in the kidneys, heart, intestines, and even the central nervous system (CNS). Therefore, coronavirus can enter and damage the cells of these organs and cause their dysfunction.

Conclusion: Sodium has been shown to reduce the entry of coronavirus into cells. In addition, studies in mice have demonstrated that high dietary sodium intake reduces ACE2 expression in the kidneys. Therefore, controlling and maintaining the body's normal sodium balance or even increasing it to some extent can greatly prevent coronavirus from entering cells and prevent the damage and disorders that result in various organs of the body. A survey of the results obtained in this field highlights the importance of maintaining the body's sodium balance during the disease and the consequences of sodium disorders, especially hyponatremia.

G-1471

The effect of guava (Psidium guajava Linn)fruit on the hemoglobin level in iron deficiency anemia of children and pregnant women : a systematic review

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Introduction: Iron deficiency anemia (IDA) occurs when the body lacks enough iron to produce hemoglobin, causing a decrease in the ability of red blood cells to carry oxygen to tissues. Guava (Psidium guajava Linn) fruit, rich in iron and vitamin C, can help prevent and improve IDA. Vitamin C boosts iron absorption, while the fiber in guava enhances it further. The importance of iron deficiency in children and pregnant women is significant. Iron in pregnant women is necessary for the development of the fetus. Also, iron deficiency can affect the growth and development of children. This systematic review investigates the therapeutic effects of guava fruit consumption on IDA and hemoglobin levels in children and pregnant women.

Method & material: Based on Cochrane systematic review principles and PRISMA guideline, the study conducted using predetermined keywords "guava", "Psidium guajava linn", and "anemia" on electronic databases such as PubMed, Scopus and Web of Science. Also Google Scholar search engine have been used for reviewing grey literature. These searches were conducted from 2011 to May 2023 in the mentioned databases. The inclusion criteria were clinical trial and randomized clinical trial studies involving pregnant women and children. Exclusion criteria were Non-English language articles, review and animal studies and conferences article. Screening and data extraction were conducted by two authors independently and any discrepancies were resolved by consensus involving a third author. All included article were quality assessed via Cochrane ROB 2 tool. Then the data of included articles was collected in extraction tables.

Result: Overall 1230 articles were found and after removing 1207 duplicates and irrelevant title and abstracts, the full-text of 23 articles were assessed for eligibility. Finally, 4 for articles included in the study with total of 216 patients. Two clinical trial studies were related to pregnant women, and two randomized clinical trial studies were related to children. Administering guava fruit to pregnant women leads to an increase in hemoglobin levels of 1.3_3.8gr/dl (p-value 0.05).children who are anemic leads to an increase in hemoglobin levels of 0.3_1.1 gr/dl in the group of children(p-value 0.05).These results reduced the prevalence of IDA.

Conclusion: These studies showed the effect of guava fruit on increasing hemoglobin levels and iron absorption in anemic pregnant women and children and therefore, improvement in IDA status of target groups. A limitation of these studies was the poor long-term compliance of food-based interventions for iron deficiency/IDA, therefore, we recommend further research in this area.

G-1472

The effect of Plantago major on skin dermatitis: a systematic review of clinical trial

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Introduction: Acute dermatitis caused by radiotherapy is a common complication, especially in the wrinkled areas of body, which causes disruption in the quality of life and interrupts the treatment of breast cancer disease. Plantago is a genus used extensively all over the world as functional foods and remedies for skin inflammation. This study reviews the effect of Plantago on skin inflammation.

Method & material: We conduct database searches in PubMed, Scopus and Web of Science. Two reviewers independently evaluate the articles to identify potentially eligible studies. Relevant articles were assessed for risk of bias and quality. The database searches clinical trials include skin inflammation and wound healing with Plantago major. Relevant data were compiled for the capability and effectiveness of Plantago major treatments in accelerating skin inflammation or wound healing.

Result: Of the 82 publications identified, 8 met the inclusion criteria. Studies included 20 to 100 animals and varying concentrations of P major. There were no reports of losses during research. Wound healing was assessed between 14 and 21 days following inflammation. The best response occurred with 10%, 20%, and 50% concentrations when compared with control groups. All studies had a high risk of bias and a lack of methodological rigor.

Conclusion: The results of this review find evidence about positive effectiveness of Plantago major on skin Inflammation. More trial studies with adequate sample sizes are required to establish this result.

G-1474

Level of neuropeptide Y in the serum of patients with covid-19 and its relationship with Tumor Necrosis Factor of Alpha before and after steroids therapy

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Introduction: There is a great need to identify compounds which interfere with covid-19 inflammatory function so they can potentially prevent the inflammatory phase of the virus from occurring. Neuropeptide compounds are known as regulators of the immune system. They are released as co-transmitters from nerve terminals. As NPY affects the inflammatory cells through secreting from them or their activity. This study compares changes in NPY levels in the serum of Covid-19 patients, particularly after anti-inflammatory medication treatments, and investigate its correlation with TNF-α.

Method & material: The study was conducted as a single group before and after cohort study in 56 patients with Covid-19 (Positive PCR) at Baqiyatallah hospital. Demographic information, vital and clinical signs, laboratory factors, taking steroid drugs were extracted from the patient files. Patient serum samples at the arrival to the hospital and after steroid treatment were collected. The NPY and TNF-α factor levels were measured and analyzed with ELISA kit. Paired T-TEST and Pearson correlation in SPSS were used to analyze variables.

Result: The results showed that the mean levels of NPY, α TNF, CRP, and ESR were significantly reduced after treatment with steroid drugs (p value 0.05). The interactions and changes of lymphocytes and neutrophils after drug treatment were remarkable but not significant (p value 0.05). The results also indicated a high correlation between NPY and TNFα (p value 0.01, r=0.917). In addition to TNFα, a direct and significant relationship was found between NPY and creatinine (p value 0.05, r=0.42) and BUN (p value 0.01, r=0.45). ESR and BUN factors showed a positive and significant correlation with the length of hospitalization. However, the correlation between NPY and TNFα with the length of hospitalization was not significant (p value 0.05).

Conclusion: In conclusion, this study proposed the possibility of regulatory role of NPY in Covid-19's inflammatory processes due to its high correlation with TNF-α. The NPY and its antagonists could be introduced as candidates in Covid-19 treatment. It is also suggested that NPY could be used as a marker in coronavirus disease. However, future studies could improve these findings with a large sample size and inclusion of control healthy group.

G-1475

Encephalitis during covid-19 pandemic: A systematic review

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Introduction: Since the COVID-19 outbreak, several researches have been done to elucidate and understand the neurological effects of this disease on the brain. Encephalitis is one of the most important complications related to SARS-CoV-2. Several case reports and case series have reported encephalitis caused by COVID-19. So we are trying to evaluate this issue from the aspect of clinical symptoms, diagnosis, treatment and outcome.

Method & material: We have done a database search using Pubmed/Medline, Embase, and Web of Science to find articles and publications about encephalitis caused by SARS-CoV-2. The irrelevant studies were excluded. Then, the information associated with diagnosis, treatment, clinical manifestations and, outcome was evaluated.

Result: 45 articles met our criteria and were selected for further evaluation. These publications reported an overall number of 53 COVID-19 related encephalitis cases. MRI showed hyperintensity of brain regions including white matter (44.68%), temporal lobe (17.02%), and thalamus (12.76%). on the other hand CT scan showed the hypodensity of the white matter (17.14%) and cerebral hemorrhages/hemorrhagic foci (11.42%) as the most frequent findings. The IV/oral methylprednisolone (36.11%), IV immunoglobulin (27.77%), and acyclovir (16.66%) were more efficient for COVID-19 associated encephalitis. Of the 46 hospitalized cases, 13 (28.26%) patients died.

Conclusion: Our review evaluated encephalitis as a neurological complication of SARS-CoV-2. Other neurological comorbidities are possible to accompany encephalitis. Although most COVID-19 associated encephalitis cases are curable and reversible but they may cause life-threatening situations for patients. More studies are required to debate this issue.

G-1476

Investigating and comparing the amount of aflatoxin B1 in bulk and packaged black pepper in Sanandaj city

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Introduction: Aflatoxins are secondary metabolites of a group of filamentous fungi that are produced in most foods such as cereals, dairy products, nuts and spices under favorable environmental conditions. The purpose of this research is to determine and compare the amount of aflatoxin B1 in bulk and packaged black pepper in Sanandaj city.

Method & material: The present research was analyzed cross-sectionally on 15 samples of bulk black pepper sold in the traditional market of Sanandaj city and 5 samples of this product in the form of packaging belonging to 5 reputable commercial brands were collected and tested in a simple random manner. Enzyme-linked immunosorbent assay (ELISA) was used to analyze the samples. Data analysis was done using SPSS software and ANOVA statistical test.

Result: Aflatoxin B1 was found in all samples and its concentration was determined in the range of 0.003 to 1.958 µg/kg. The average concentration of aflatoxin B1 in powdered bulk samples was significantly higher than unground bulk samples, but there was no significant difference between the average concentration of aflatoxin B1 in bulk and packaged black pepper. However, the concentration of aflatoxin B1 in none of the samples exceeded the EU limit (5 µg/kg).

Conclusion: Although all the samples of black pepper sold in Sanandaj city were less than the permissible level of contamination, but considering the common use of this spice in food preparation, it can be a serious threat, therefore, regular monitoring of processing and storage is recommended. This product should be done.

G-1477

Cost Analysis and its affecting factors among COVID-19 Patients in a big educational hospital in Tehran

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Introduction: The COVID-19 pandemic has caused an increase in the cost of diagnosis, hoteling, medicine, and a decrease in income due to premature death and business closure. Therefore, this study aimed to identify and determine the factors affecting the direct costs of treatment of corona patients admitted to a big referral hospital in Tehran.

Method & material: This was a descriptive analysis method that was conducted cross-sectional on 28997 Corona patients admitted to the hospital. The data collection form was designed by the researcher using the studies that were conducted on the economic evaluation and social economic factors affecting the costs of treating diseases, and with the cooperation of the vice president of research and the medical records unit, the data related to direct medical costs The treatment of patients with covid-19 was collected. Data analysis was done in the first step using SPSS software and in the second step using STATA software and performing ordinary least squares regression and logistic regression. This study was extracted from the Master's thesis in the field of health services management with a code of ethics IR.BMSU.REC.1399.550.

Result: 56/4%of patients were male, 91.3% were married, and 10,231 (35.29%) were in the age group of 45-59. 56.3% of patients had insurance and 21.4% had no insurance. 9225 people (31.7%) tested positive for covid-19 and 57.8% of patients with respiratory symptoms came to the hospital. 21413 people (73.9%) were admitted to the normal care department and 3252 people were admitted to the special care department. The average length of stay of the patients in the hospital was 5.7 days and the number of 1869 people (6.4%) had died. The most hospitalizations (13055 people - 45%) happened in the fifth wave of the Covid-19 epidemic. The total direct medical costs of treating the patients were equal to 3,510,085,930,832,000 Rials.

Conclusion: There is a direct relationship between the length of stay, the type of care, and underlying diseases along with the direct costs of treating patients with COVID-19. Policymakers should provide the necessary mechanisms to cover the community members with insurance and hotel and pharmaceutical services to reduce the costs paid by the patients.

G-1478

Toxicological effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on thyroid function: a systematic review and meta-analysis of animal studies

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Introduction: 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) has been found as an endocrine-disrupting chemical that may affect thyroid function as indicated by animal studies. Several recent studies have indicated that association between TCDD exposure and thyroid dysfunction; but, there is several controversial reports in this issue. This systematic and meta-analysis study was designed to find evidence related to TCDD effects on the thyroid function as evidenced by change in the serum thyroid hormones concentration in animals.

Method & material: A systematic search was performed in Scopus, PubMed, and Web of Science literature databases and motor engine search Google Scholar, (until Dec, 2021), searching for animal studies (rodents) that assessed the impact of TCDD on thyroid function. The risk of bias was evaluated by the SYRCLE's RoB scale. The quality of each article was evaluated using a random-effects meta-regression. Heterogeneity among the articles was assessed with the I square and Q test.

Result: The overall size effects indicated that TCDD significantly increased serum T3 and T4 levels in the exposed animals versus the control groups [(SDM: 140.24, SE= 19.97; 95% CI: 101.09, 179.39, p = 0.0001), (SDM: 35.23, SE= 4.27; 95% CI: 26.85, 43.61, p = 0.0001), respectively]

Conclusion: Our meta-analysis findings indicated that TCDD could induce hyperthyroidism in rodents. However, due to limited number of studies included in our studies, we could not strongly suggest this association. Therefore, more studies should be designed to address this question in humans and animals.

G-1479

Therapeutic effects of L–carnitine against an amyloid–bets induced rat model of Alzheimer disease: a behavioral study

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Introduction: Alzheimer's disease is a neurodegenerative disease leading to cognitive and memory impairment. Beta-amyloid (Aβ) stimulates the types of activated oxygen and causes oxidative stress and the death of nerve cells. . L-carnitine is one of the effective compounds in mitochondrial function and energy production. This compound is found naturally in most tissues of the body, including the brain. The antioxidant function of this compound has been proven. It has been reported that carnitine compounds show protective effects for central and peripheral neurons. The ability of both compounds to reduce oxidative stress, DNA oxidative damage and lipid peroxidation can be the basis of their protective effect for neurons. The purpose of this research is to investigate the effect of L-carnitine on the process of memory and learning due to it's antioxidant and neuroprotective effects in Alzheimer's disease, so that , we can prevent the rapid progress of the disease .

Method & material: 28 male rats were randomly divided into four groups with 7 rats in each group: control, , Alzheimer (ICV injection of Aβ solution), control+ (0.1 g/kg of L-carnitine), and treatment (0.1 g/kg of L-carnitine after the ICV injection of Aβ). The l-carnitine solution was administered for 30 days by oral gavage. Following treatments, the animal's learning and memory were investigated using passive avoidance learning (PAL) task, elevated plus maze , barnez, maze, and novel object recognition (NOR) tests.

Result: The results of this study demonstrated that the intraventricular injection of beta amyloid Aβ caused a decrease in passive avoidance memory as well as spatial memory and new object recognition memory. Whereas, L-carnitine improved passive avoidance memory, new object recognition memory and spatial memory. The results of the elevated plus maze showed the anti-anxiety effect of L-carnitine and decrease in the time spent in the dark and administration of l-carnitine increased the discrimination index of the NOR test .

Conclusion: The findings of the present study demonstrate that l -carnitine can improve memory and learning impairment following Aβ infusion. These effects are likely due to the antioxidant properties of l -carnitine and its ability to scavenge free radicals.

G-1481

Association between serum vitamin D and troponin I levels, type of stent and type of stenotic vessels in patients undergoing elective percutaneous coronary intervention (PCI)

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Introduction: Coronary artery disease is the world's most common cause of death. Vitamin D deficiency has been identified as one of the most important poor prognostic factors in patients with coronary heart disease. According to the prevalence of vitamin D deficiency in our region, this study aimed to evaluate the relationship between vitamin D and troponin I levels, type of stent and type of stenotic vessels.

Method & material: In this prospective cross-sectional study, 500 patients undergoing successful elective coronary intervention from January 2021 to August 2021 in teaching hospital in Shiraz were included (Registration number:1397-01-67-14348). The exclusion criteria include treatment with vitamin D during the last month, ST-Elevated myocardial infarction, and cardiac bypass surgery in the previous three months. Blood samples were obtained at baseline to measure vitamin D and troponin I levels and 24 h after PCI to measure troponin I. Moreover, the association between vitamin D deficasy and the type/length of the stent (Sirolimus/Everolimus eluting stent) and the type of vessels with stenosis [(Left Anterior Descending (LAD), Right Coronary Artery (RCA), and Left Circumflex Artery (LCX)] were studied. Patients were monitored during hospitalization and 30 days after the intervention.

Result: About 69% of patients suffered from moderate to severe vitamin D deficiency. Based on the multivariate analysis a significant positive relationship was observed between the serum level of vitamin D and changes in the troponin I level in females (P-value = 0.028). In contrast, no statistically remarkable changes were observed in males (P-value = 0.150). No statistically significant relation was found between vitamin D levels and the mean degree of stenosis of LAD and RCA (P-value = 0.14 and 0.25, respectively). On the other hand, there was a significant direct relationship between the mean degree of LCX stenosis and the vitamin D level (P-value=0.02). Although longer stents were used for patients with lower vitamin D levels, no statistically significant correlation was found between the length of the stent and the level of vitamin D (P-value = 0.86 and P-value = 0.89 for Sirolimus and Everolimus eluting stents, respectively).

Conclusion: According to the inverse association between low vitamin D levels and upward changes in pre/post-procedural troponin I, vitamin D may be considered a marker of short-term prognosis in post-PCI patients, and patients may benefit from vitamin D supplementation before PCI, particularly females.

G-1482

Predictive Factors Related to Brucellosis Prevention Among Livestock Farmers Based on The PRECEDE–PROCEED Model

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Introduction: Brucellosis is one of the most common zoonotic diseases that has wreaking havoc on economy of rural communities and society in general. According to World Health Organization (WHO), approximately half a million cases of brucellosis are diagnosed around the world annually. Health education models such as The PRECEDE-PROCEED Model, can play an important role in both identifying basic health needs and successful planning for behavior change. In this study the basic focus of the research group was on the third part of the PRECEDE-PROCEED Model (Educational and Ecological Diagnosis). In this study we sought to determine the predictive factors related to brucellosis prevention among livestock farmers in rural areas of Germi county.

Method & material: In a cross-sectional analytical study that took place in 2021, 365 Livestock farmers in villages of Germi were selected using cluster sampling. Educational needs assessment about brucellosis were assessed using the questionnaire comprising 4 modules; first module included demographic characteristics and other 3 modules assessed the components of PRECEDE-PROCEED Model (i.e., predisposing factors, enabling factors, and Reinforcement factors). Inclusion criteria included 1- having livestock 2- living in the village and 3- completing informed satisfaction. Data were analyzed using SPSS v.20 and p0.05 was considered statistically significant. Analytical tests such as ANOVA and regression, Pearson correlation were used to analyze the data.

Result: In this study, participants had a mean (SD) age of 42.5±12.5, 49.3% were men, 34.2% of participants were illiterate, 57.3% with less than diploma. A high average (M=64.5±6) knowledge about the transmission of brucellosis was observed among livestock farmers. However, the mean of attitude scores (about the regular visit of animals by the veterinarian and the effects of the disease on health status) were low (M=27±3.3). Enabling factors (having protective equipment, access to pasteurized dairy products, keeping livestock outside the village and vaccination of livestock) had the low average (M=35 ± 8.7). Enabling factors and reinforcement factors were strongly correlated (r=0.338, p=0.001).

Conclusion: Enabling factors (having protective equipment, access to pasteurized dairy products, keeping livestock outside the village and vaccination of livestock) had the low average (M=35±8.7). Enabling factors and reinforcement factors were strongly correlated (r=0.338, p=0.001).

G-1483

Effects of Bunium persicum (Boiss.) B.Fedtsch. and Piper nigrum L. in the treatment of patients with mild to moderate Alzheimer's disease: a double-blinded, randomized, placebo clinical trial

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Introduction: Alzheimer's disease (AD) a common form of dementia is a globally growing disease with a high financial burden leading to morbidity and mortality. Current medications focus on symptom therapy and preventing disease progression. No curative management has been established for the disease till now. Traditional Persian medicine (TPM) suggests various natural medications for what we know as AD in today's medicine. The goal of the present study is to assess the efficacy of a memory enhancer formulation cited in Canon of Medicine containing Bunium persicum (Boiss.) B.Fedtsch. and Piper nigrum L. (1:1), in patients with mild to moderate AD.

Method & material: The plants were powdered and mixed with an electric grinder in a ratio of 1: 1 and filled in the 500 mg capsules. Placebo was also prepared from roasted starch with 10% of the mixture of plants and filled in identical-looking capsules. Participants were recruited from December 2020 to February 2021 from a teaching clinic in Shiraz (Ethic number: IR.SUMS.REC.1398.963, and IRCT code: IRCT20191212045709N3). Patients older than 50 years of age with mild to moderate AD based on the DSM-5 criteria were included in the study after confirmation by neurologist. The patients were excluded from the study if starting a new medication for AD in the last 6 months. The block randomization method was used to randomize the patients. Patients received two capsules of drug/ placebo daily for six months.

Result: 35 patients in the placebo group, and 36 patients in the drug group completed the study. The drug group showed remarkable improvement (P-value 0.001) in PCDR scores including memory, orientation, judgment/problem-solving, and home & hobbies domains. Moreover, medication has also reduced aggression, restlessness, insomnia, and impaired concentration during the study interval in the drug group (P-value 0.001).

Conclusion: This is the first study investigating the clinical efficacy of this formulation. This formulation has been standardized in a previous study and the efficacy has been confirmed in the animal model. After future studies with greater sample sizes and longer follow-up periods, it can be considered a traditional-based memory enhancer supplement.

G-1485

Evaluating the Safety and Efficacy of a Poly-Herbal Formulation from Traditional Persian Medicine (TPM) in Patients with Calcium Kidney Stones: A Randomized, Double-Blinded Clinical Trial

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Introduction: Nephrolithiasis affects 10-15% of the world's population during their lifetime. The economic burden of the disease is estimated to be more than $2.1 billion annually in the USA. Despite this, effective medical treatment for nephrolithiasis is not yet well established, and current medications have disadvantages including high costs, invasiveness, and side effects. As a result, there is a growing global demand for Complementary Medicine to manage the diseases. This study aims to assess the safety and efficacy of a multi-ingredient herbal formulation from traditional Persian medicine (TPM) known as Mofatet powder cited in Qarabadin-e-Salehi in patients with calcium kidney stones.

Method & material: Equal parts (1.2 kg) of each Mofatet powder constitute including Cucumis sativus L. (Seed), Cucurbita pepo L. (Seed), Apium graveolens L. (Seed), Foeniculum vulgare Mill (Seed), Pimpinella anisum L. (Seed) and Tribulus terrestris L. (Fruit) were prepared and mixed with an electric grinder. Then, each 500 g of the powder mixture was boiled in 5 liters of distilled water for 10 minutes to obtain an aqueous extract. The aqueous extract was concentrated using a rotary evaporator, freeze-dried, and formulated into 500 mg capsules. 51 patients with confirmed calcium kidney stones more than 5 mm in the lower pole of the kidney were included in the study from a teaching clinic in Shiraz and participated in a randomized, double-blind clinical trial from February 2020 to March 2021 .After randomization using the block method, the drug group (26 patients) received two 500 mg capsules of the drug daily for 6 weeks.

Result: The imaging results showed a 61.73% decrease in stone size just in the drug group (P-value 0.001). Additionally, urinary calcium decreased (P-value=0.02) and urinary magnesium increased (P-value0.001) in the drug group showing reduced supersaturation leading to stone formation. No remarkable effect was observed in AST, ALT, serum creatinine, and BUN level in none of the groups suggesting no potential nephro/hepatotoxicity.

Conclusion: This formulation should be considered a potent formulation from TPM based on its effectiveness and safety in this study. Thus, the importance of more in-vivo and in-vitro studies to discover the underlying mechanisms and larger clinical trials is clear to fully explain and confirm the results obtained in the present study.

G-1486

Long non-coding RNAs could be considered as a therapeutic and diagnostic target in drug resistant glioma

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Introduction: Long non-coding RNAs (lncRNAs) play a key role in various cellular processes, including tumor growth, proliferation , metabolism and gene expression regulation. According to studies, there are several lncRNAs that are dysregulated in gliomas, a malignant brain tumor. A first-line drug to treat high-grade gliomas is temozolomide (TMZ). However, TMZ resistance leads to disappointing therapeutic effects on gliomas.

Method & material: In order to find relevant data from 2014 to 2023, searches were conducted in databases such as PubMed, Google scholar, SID and Scopus. The search included key words such as lncRNA gelioma and drug resistance

Result: In one study it was demonstrated that Silencing lncRNA FOXD2-AS1 inhibits tumorigenesis and drug resistance of glioma cells and promotes their apoptosis [1]. Another study showed that over-expression of lncRNA TMEM161B-AS1 promotes proliferation, migration, invasion and resistance to TMZ [2]. Several articles have been found to present new lncRNA as a therapeutic and diagnostic target for glioma, such as NEAT1 , CCAT2 , UCA1 , GSCAR , HOTAIR , XIST and many others [3]. It has been shown that a variety of regulation types are involved, including interactions with the Myc protein, miRNAs, CDK, and DNA. Additionally, some lncRNAs were down-regulated during gelioma development. Increased levels of these lncRNAs showed significant improvement and amelioration of malignant glioma tumors. These types of lncRNAs like CASC2 and TUG1 could be considered as a potential target for treatment of glioma TMZ resistant.

Conclusion: Overall, these findings suggest that targeting lncRNAs could be a novel and promising approach for diagnosis and treating gliomas and other types of cancer.

G-1487

tumor growth and tumor suppression following COVID-19 infection

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Introduction: Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Anyone can get sick with COVID-19 and become seriously ill or die at any age. Lung carcinoma, another name for lung cancer, is a cancerous growth that starts in the lung. The DNA of cells in the airways is damaged genetically, which results in lung cancer.

Method & material: A search was conducted in databases such as PubMed, Google Scholar, SID and Scopus to find relevant data from 2019 to 2023. Search terms included COVID-19& tumor" ،lung cancer

Result: The virulent and highly contagious SARS-CoV-2 virus causes severe acute respiratory syndrome. Patients with malignant tumors who also have severe SARS-CoV-2-caused corona virus disease 2019 (COVID-19) are more susceptible to the disease because their immune systems have been weakened by anti-tumor therapy, malnutrition, and tumor depletion. The risk of a serious illness and fatality in COVID-19 patients is closely correlated with cancer. In order to initiate tumor metabolic modes with higher productive efficiency, such as glycolysis, SARS-CoV-2 may trigger metabolism switching in tumor cells and accelerate tumor development. However, it has been demonstrated that SARS-CoV-2 infection slows the growth of tumors in people with Hodgkin's and natural killer cell (NK) lymphomas, and SARS-CoV-2-induced anti-tumor immune responses may have an oncolytic effect in lymphoma patients. The probable carcinogenicity and oncolytic properties of SARS-CoV-2 were briefly reviewed in this review, along with measures to safeguard cancer patients during the COVID-19 pandemic.

Conclusion: The COVID-19 pandemic has had a profound impact on global health, with cancer patients being particularly vulnerable due to weakened immune systems. SARS-CoV-2 virus may cause a change in the way that tumor cells metabolize, potentially speeding up the growth and development of tumors. However, recent research suggests that SARS-CoV-2 could have an oncolytic effect in lymphoma patients, slowing tumor growth and triggering anti-tumor immune responses. This review examines the potential carcinogenicity and oncolytic properties of the virus, as well as measures to protect cancer patients during the pandemic. Although further research is needed, these findings offer hope for potential therapeutic approaches using SARS-CoV-2 in cancer treatment.

G-1488

Effect of Cognitive behavioral therapy on Depression and Anxiety in the Traumatic Brain Injury patients: A systematic review of randomized controlled trials

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Introduction: Traumatic Brain Injury (TBI) is a global public health concern and one of the leading causes of death and disability, with an estimated 64-74 million persons sustaining a TBI each year. TBI can cause acute physical, cognitive, and psychological symptoms. In addition, changes in daily life and lifestyle changes as a result of the injury can create feelings of disconnection, which in turn can feed symptoms of anxiety and depression. In many literature reviews, including the treatment of anxiety and depression in TBI patients, Cognitive Behavioral Therapy (CBT) has been mentioned. The aim of this study is to systematically investigate the effect of Cognitive Behavioral Therapy on depression and anxiety in Traumatic Brain Injury patients.

Method & material: Search based on the criteria considered in PICO and in order to answer the research question using PubMed, Scopus, Web of Science, SID and Magiran search engine during the years 2000-2023 using keywords "Cognitive Behavioral Therapy", "Depression", "Anxiety" and "Traumatic Brain Injury" in MESH search was done by two people independently using Boolean operators and PRISMA checklist.

Result: 226 studies were found in the initial search and finally 12 studies were selected based on the inclusion criteria. Based on the results of studies, cognitive behavioral therapy has been effective in managing and reducing psychiatric symptoms and psychological distress, including depression and anxiety in patients with traumatic brain injuries. According to studies, these treatments have led to the improvement of depression symptoms, avoidance and re-experiencing, resilience, emotional, behavioral and cognitive disorders. On the other hand, they have had positive effects on the reduction of anxiety, ADHD and PTSD symptoms in these patients, which ultimately led to the improvement of emotion regulation, cognitive and social functions, the ability to adapt to life experiences, and in general, the quality of life and sleep quality in these patients.

Conclusion: This systematic review supports the view that CBT interventions contribute to reducing both of depression and anxiety symptoms in patients following TBI. Many patients with TBI struggle with depression or anxiety. Using CBT as a type of psychotherapy can modifies them and be useful in improving the mental health of the TBI patients. Therefore, CBT can be included in comprehensive care programs for TBI patients.

G-1489

Investigating the effectiveness of a poly-herbal formulation from traditional Persian medicine (TPM) in gastroesophageal reflux disease (GERD), a double-blinded randomized clinical trial

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Introduction: Gastroesophageal reflux disease (GERD) affected nearly 10- 20 % of the world's population. Due to the complications associated with GERD, as well as complications of long-term treatment with current medications, and global demand toward Complementary and Alternative Medicine (CAM), this study evaluated the efficacy of a poly-herbal formulation known as Mastic pill cited in Qarabadin-e-salehi, previously reformulated and standardized, in a double-blinded randomized clinical trial.

Method & material: Mastic pill include 2 parts of Bunium persicum (Boiss.) B.Fedtsch. fruit, 0.75 parts of Zingiber officinale Roscoe rhizome, 2 parts of Elettaria cardamomum (L.) Maton fruit, and 2 parts of Pistacia lentiscus (L.) gum. The plants were powdered and mixed with an electric grinder and the 500 mg of the mixture powder was filled in each capsule. Placebo was also prepared from roasted starch with 10% of the mixture of plants present in the formulation and filled in identical-looking capsules. Participants were recruited from February 2020 to March 2021 from the teaching clinic in Shiraz . The diagnosis of gastric reflux was confirmed by Specialists in Gastroenterology based on the three positive symptoms from heartburn, regurgitation, dysphagia, nausea/vomiting, bloating, and abdominal pain. Patients taking medications that can cause or exacerbate reflux were excluded. Patients received four capsules of drug/placebo beside Omeprazole capsule.

Result: 34 patients in the drug group and 34 patients in the placebo group completed the study. Reflux, and heartburn severity score as well as disruption of personal life score significantly reduced in both groups, but it was more remarkable in the drug group (P-value = 0.0001). Dysphagia, early satiation, and nausea significantly reduced in the drug group while the placebo group showed no improvement. Our results suggest that constipation, bloating, belching, and odynophagia did not significantly improve in none of the groups.

Conclusion: This study showed that Mastic pill is effective against GERD. Further detailed in vitro and in vivo studies aimed at discovering the mechanism of action of this formulation and clinical studies involving a larger population will be necessary to explain and confirm the results obtained in the present study.

G-1490

The effect of motivational interviewing on self-care and quality of life in patients with heart failure: A systematic review of randomized clinical trials

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Introduction: Motivational interviewing is one of the counseling approaches designed to help patients find the motivation to make a positive behavior change. Heart failure (HF) is a progressive clinical condition and an increasing public health problem worldwide. Non-participation is common in self-care program among these patients and it is the leading cause of decreasing functional status, hospitalizations, and numerous physical and mental symptoms. This study aims to determine the effect of motivational interviewing on self-care and quality of life of patients with heart failure.

Method & material: Search based on the criteria considered in PICO and in order to answer the research question using PubMed, Scopus, Web of Science, SID and Magiran and search engine during the years 2000-2023 using keywords "Motivational Interviewing", "Self-Care", "Quality of Life" and "Heart Failure" in MESH search was done by two people independently using Boolean operators and PRISMA checklist.

Result: In the initial search 116 studies were found. Finally, 8 articles were selected based on inclusion criteria. Most of the studies concluded that Motivational interviewing had a positive effect on self-care behaviors and quality of life in patients with heart failure. This intervention associated with improvement in wellbeing, physical activity, sleep quality, medication adherence and clinical and health behavior outcomes. It is also led to reducing depression and anxiety and improve quality of life. This intervention can help as a healthcare professional intervention to this patient to improving health conditions.

Conclusion: The results showed that motivational interviewing can effect on self-care and quality of life in patients with heart failure. In addition, our findings show that the Identifying methods to improve HF self-care and quality of life may lead to improved clinical outcomes. It is also recommended that medical staff, especially nurses, use the present intervention method in patients with heart failure. Finally, the articles suggest that larger trials are needed to better understand this intervention on self-care and quality of life in heart failure patients.

G-1492

Investigating of the effect of reporting the stages of surgery on self-confidence and clinical self-efficacy of anesthesia students

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Introduction: The two basic pillars in maintaining and promoting clinical competence of paramedical students are self-confidence and self-efficacy. The aim of this study was to investigate the effect of reporting the stages of surgery on self-confidence and clinical self-efficacy of undergraduate anesthesia students

Method & material: This is a semi-experimental study of two-group, which was conducted on 64 undergraduate anesthesia students at Ahvaz Jundishapur University of Medical Sciences in 2020. Students were randomly divided into two experimental and control groups using easy sampling method. In the experimental group, case-report presentation was performed on the day of surgery and presented daily during the course of the training. Pre-test and post-test were performed by clinical self-efficacy and self-confidence questionnaires in two groups before and after the intervention. Statistical tests were t-test, paired t test and chi-square test.

Result: The mean scores of self-efficacy and self-confidence before the intervention were not significantly different between the two groups (p 0.05). The mean scores of self-efficacy and self-confidence after the intervention in the experimental group were significantly higher than the control group (p 0.05). The mean scores of self-efficacy and self-confidence in the intervention group after the intervention were significantly higher than before the intervention (p 0.05). But the mean scores of self-efficacy and self-confidence in the control group were not significantly different between before and after the intervention (p 0.05).

Conclusion: Therefore, according to the results of the study, it is recommended that reporting during surgery be used by trainers as one of the methods of clinical teaching assistance.

G-1493

Peer student support system during the COVID-19 pandemic: An interventional study

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Introduction: With the outbreak of Covid-19, universities of medical sciences witnessed an expansion of interest in distance education and ways to promote it. Peer student support in distance education can be used in universities to improve the quality of the teaching-learning processes. The current research was designed and implemented to determine the impact of a peer student support system on distance education during the Covid-19 pandemic at Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran, in 2020-2021.

Method & material: In this interventional study, all undergraduate and MD (medical doctor) students (n=5464) of AJUMS received peer student support and were included in the study using census method. Peer student support interventions, including ticketing and formative evaluation, were continuously implemented in 2020-2022 in four consecutive academic semesters. In order to collect data, the following three tools were used after verification of their validity and reliability: The ticketing system evaluation form, the formative evaluation checklist of distance education, and the distance education quality evaluation questionnaire based on students' views. Data analysis was done by SPSS software version 26, using descriptive and analytical statistics (chi-square test).

Result: The results showed that the peer student support system reduced the number of complaints and referrals of students and led to improved presentation of distance education by professors and satisfaction of students during the crisis. Overall, this system improved the quality of students' achievement in distance education (p0.001).

Conclusion: Peer student support system can lead to reduced student complaints and referrals, improved quality of professors' distance teaching, enriched educational content, and more organized courses. Therefore, universities and educational institutions are strongly recommended to implement this system and maintain its use even after the Covid-19 pandemic.

G-1494

Comparison of the effect of self-care training in two face-to-face and electronic methods on the quality of life of patients under the influence of radiotherapy referring to Shafa Ahvaz Hospital

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Introduction: Today, cancer is the third cause of human death and one of the most important challenges of Iran's healthcare system, which reduces the quality of life of affected patients. The purpose of this study was to compare the effect of self-care training through sending software-based training recommendations and face-to-face training on the quality of life of cancer patients undergoing radiotherapy in 2018 at Shafa Hospital in Ahvaz.

Method & material: This is a semi-experimental study that was conducted with the participation of 102 cancer patients undergoing radiotherapy in Shafa Ahvaz Hospital in 2018. The research has been done with available sampling method. Before and after the educational intervention, the QLQ-C30 questionnaire was given to two groups. Then the data were analyzed using descriptive and inferential statistical tests and SPSS software

Result: The average quality of life of patients in the face-to-face and electronic education groups was similar to each other in the pre-test stage, but after the intervention, a significant difference was observed in the pre-test between the two intervention and control groups (p0.05).

Conclusion: Finally, considering the increasing number of cancer patients in the society and their dispersion in different places and the costly and practical difficulties of the face-to-face method, as well as the severity of the problems of cancer patients and the huge costs of controlling these complications, it is recommended that E-learning method should be given more attention and organizations should invest more in this field by using competent experts.

G-1495

Nursing students competency about writing nursing care plan: An exploratory study in Iran

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Introduction: The nursing care process is an important tool for implementing nursing knowledge and improving the quality of care. This study was conducted to examine the competence of nursing process development among nursing students in Ardabil (Northwestern Iran).

Method & material: This cross-sectional descriptive study was conducted on 248 nursing students. Data were collected using a simple random sampling method and included a demographic questionnaire and the student survey on writing nursing care plan. descriptive statistics, Pearson correlation, t-test, ANOVA, and multiple linear regression analysis were used for data analysis.

Result: The overall mean score of the student survey on writing nursing care plan was 3.35 with a standard deviation of 0.57 on a scale of 1 to 5. The weighted mean score for each dimension was as follows: (G) data collection = 3.40, good; (I) problem identification = 3.40, good; (O) goal setting = 3.31, good; (D) appropriateness of interventions = 3.30, good; and (P) evaluation of outcomes = 3.37, good. The weighted mean score for the overall dimension was 3.35, indicating that the quality level of nursing students in writing NCPs was good Among the five dimensions, the lowest score was related to appropriateness of interventions. Multiple linear regression analysis showed that four variables including average grade point average, age, academic term, and study hours were significant predictors of student survey on writing nursing care plan scores and could predict 61% of the total variance.

Conclusion: Based on the results, most nursing students had good quality in writing nursing care plans. Additionally, nursing students with higher GPAs and more study hours provided higher quality nursing care plans. Therefore, nursing students are recommended to improve their skills in various courses to enhance their understanding of nursing concepts and principles during their educational period to increase the quality of their nursing care plans. They should also dedicate enough time to studying and practicing programming for nursing care plans and focus on improving their skills in this area. Finally, using reliable and up-to-date resources on programming for nursing care plans and collaborating with faculty and school administrators can also help improve the quality of nursing care plans. School administrators can also develop programs to enhance the quality of education and programming practice for nursing students based on these results

G-1496

Novel Anti-inflammation Marine-Sourced Compounds; Results of an In-silico Study through Virtual Screening

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Introduction: There is no denying that inflammation triggers essential immune reactions, which can lead to serious health complications. During the inflammatory response, tumor necrosis factor-α(TNF-α) and Cyclooxigenase-2(COX-2) are produced as essential inflammatory markers. Current treatments like NSAIDs and anti-TNF-α medications have severe side effects. Potential anti-inflammatory agents are found in marine algae extracts. This study explored COX-2 and TNF-α inhibitory potential of marine algae products using virtual screening.

Method & material: Marine algae products were extracted using the Dictionary of Marine Natural Products(MNP). Chemical structures were obtained from PubChem and ChemDraw, and optimized through molecular operating environment(MOE) software. Structures were converted to 3-dimensional structures, optimized by MOE, and filtered with the 5-lipinsky rule(RO5). X-ray crystal structures of TNF-α and COX-2 were obtained from the Protein Data Bank(PDB ID: 2AZ5 and 6COX,respectively) and prepared by MOE. All preparations were evaluated using Autodock-vina version4.2.

Result: In virtual screening, 1107 compounds met the RO5 criteria based on a library of 3085 ligands from marine algae products. The top 3 highest affinities to TNF-α were communesin-A, costatolide, and caulersin. For COX-2, Caulersin, Chondriamide-B, and Chondriamide-A were the top three compounds. Communesin-A from green algae had a pi-pi stacking and pi-alkyl interaction with TNF-α with TYR119 and epoxide(-7.7Kcal/mol). Costatolide, a component of red algae, had -7.5 Kcal/mol affinity energy due to the pi-pi stacking interaction from pyran rings to TNF-α. Cualersin, from green algae, had strong COX-2 inhibitory activity(-10.6Kcal/mol). It has several interactions with COX-2, including pie-alkyl, pi-sigma, pi-cation, and hydrogen bonding interactions. It also interacts with TNF-α through pi-pi stacking, pi-cation, and hydrogen bonds(-7.4kcal/mol). Chondriamide-B is obtained from red algae interacting with COX-2 target protein having the highest affinity due to the Pi-alkyl interaction and hydrogen bond (binding energy:-9.3Kcal/mol). Chondriamide-A is secreted from red algae and interacts

Conclusion: In this study, the potential of marine algae derivatives as ligands to target TNF-α and COX-2 is investigated. Among the studied compounds, communesin-A, costatolide, and caulersin display a high affinity for TNF-α, suggesting their potential as effective inhibitors. Additionally, caulersin, chondriamide-B, and chondriamide-A showed the highest affinity for COX-2, indicating their potential as selective inhibitors of this enzyme. These findings highlight the significance of marine algae derivatives as promising candidates for developing targeted therapeutics against TNF-α and COX-2. Further research and optimization of these compounds could pave the way for novel and effective treatments for inflammatory disorders and related diseases.

G-1497

Impact of Monofrequency Noise Pollution on Escherichia coli Bacterial Growth

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Introduction: With the advent of industrialization, noise pollution has emerged as a critical issue in work environments. Given that certain peripheral infections have been attributed to Escherichia coli bacteria, this study aimed to assess the influence of monofrequency noise pollution on the growth of Escherichia coli.

Method & material: An audio amplifier was designed and constructed to generate sound waves at eight distinct frequencies, namely 63.5, 125, 250, 500, 1000, 2000, 4000, and 8000 Hz. The sound intensity was standardized at 30 dB. Ten E-Coli culture mediums were utilized for each frequency. The mediums were divided into two groups and incubated under identical conditions, with one group exposed to sound waves (experimental group) and the other group left without exposure (control group). Bacterial cultures were incubated at 37°C for 24 hours, followed by colony counting. The experimental and control group data were analyzed using MATLAB2011 and subjected to t-test analysis. A significance level of 0.05 was considered.

Result: The findings revealed a significant increase in bacterial growth rate at frequencies of 63.5, 1000, 2000, and 4000 Hz (p0.05), with growth rates exhibiting a positive correlation with increasing frequency. Conversely, the growth rate was significantly reduced at 8000 Hz (p0.05). In the remaining frequencies, the growth rate did not exhibit a discernible pattern, and the observed changes were statistically insignificant.

Conclusion: This study highlights the influence of monofrequency noise pollution on bacterial growth, with enhanced effects observed at frequencies within the range of human auditory sensitivity. Consequently, regulating audio frequencies is recommended in industrial settings to mitigate the proliferation of bacteria.

G-1500

Royal Jelly Improve Anxiety–Like Behavior and BDNF Expression Following Chronic Stress Exposure in Male Rats

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Introduction: Chronic stress is a critical factor contributing to the development of cognitive impairments. A large body of research has been conducted on the neuroprotective effect of royal jelly (RJ) on anxiety-like behaviors. In addition, brain-derived neurotrophic factor (BDNF) is densely
expressed in the prefrontal cortex and RJ can improve the chronic stress-induced detrimental features in this structure. This study aimed to investigate the protective effects of RJ on anxiety-like behaviors and alternations in hippocampal BDNF levels, induced by chronic restraint and cold stress.

Method & material: This study involved 32 adult male Wistar rats from Urmia University of Medical Sciences, Iran, divided into two groups: non-stress and stress groups. Each main group was divided into 2 subgroups: Control (received saline for 14 days) and RJ (undisturbed for ten days, then received RJ daily for 14 days). By using restraint and cold temperature, rats in stress groups were exposed to stressful situations and then subjected to treatment with RJ. Also, non-stressed rats were kept undisturbed for ten days. Anxiety-like behaviors were assessed using the Elevated plus maze and Open field test, and hippocampal BDNF expression and plasma corticosterone levels were evaluated using western blotting. Statistical analysis was performed using SPSS software, and normality was tested using the Kolmogorov–Smirnov test. Two-way ANOVA followed by Tukey's multiple comparison tests were employed to investigate data with stress and treatment. All values are considered statistically significant when P 0.05.

Result: Results showed significant differences in anxiety-like behaviors and BDNF levels in stressed rats. RJ improved anxiety-like behaviors with decreased serum corticosterone and increased BDNF levels in the hippocampus in RJ-treated stressed ones (P0.01). In addition, exposure to RJ reduced the corticosterone level in stressed rats (P 0.001). Our data suggest essential pieces of evidence to decrease mood disorder symptoms.

Conclusion: These treatments can protect susceptible brain areas against chronic stress via improvement in behavioral and biochemical impairments through mediating BDNF expression.

G-1501

Investigation of electro–Fenton method for removal of antibiotic from polluted water

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Introduction: Due to the increasing use of medical compounds, there has been an elevation in the amount of antibiotics entered in wastewater. The purpose of this research was to examine the efficiency of the electro-Fenton method in the elimination of antimicrobial tetracycline from polluted water.

Method & material: In this study, we have used the electro-Fenton method for creating an effective advanced oxidation process. A total of 30 experiments were performed using 6 replications at the central point. A 250 ml reactor was used to carry out all the experiments on a lab scale and two stainless steel anodes were carried out for this aim. To achieve an optimal amount of H2O2 for elimination of Oxytetracycline, different amounts of that were added and a certain amount of NaCl salt was added to improve the ionic process. In the first step, central composite design (CCD) was used for the electro-Fenton process setup. Several parameters such as pH, current density, and initial tetracycline concentration were examined.

Result: The results showed that optimum conditions for the removal of antibiotics were at pH (3.53), current density (3.85 mA / cm2), and initial tetracycline concentration (20 mg / L). The time of 42.35 min was obtained as the optimum time for the process. The results showed that with increasing the amount of hydrogen peroxide, the removal efficiency in the electro-Fenton process increases consequently. In this study, the optimal amount of H2O2 equal to 0.12 mg/L was obtained, and in this case, the oxytetracycline removal efficiency by the electro-Fenton process reached 98.2%.

Conclusion: electro-Fenton process has promised the ability to degradation of antibiotics from an aqueous solution since the high efficiency can show these remarkable results.

G-1503

Investigation of new coronavirus (SARS-Cov2) antibody levels in the serum of staff, and faculty members of Mashhad University of Medical Sciences

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Introduction: Coronavirus pandemic has posed major challenges to health systems in many countries. Currently, detection of SARS-CoV-2 viral RNA is performed by RT-PCR assay. But this test is expensive and requires complex laboratory facilities and allocations. The cost and difficulty of serological tests that detect IgM, IgG, IgA, or total antibodies to SARS-CoV-2 are lower. Seroconversion occurs in most people within two weeks after the onset of symptoms. The role of serology in assessing individual protective immunity is still not well defined. This study aimed to investigate the levels of IgM and IgG antibodies against COVID-19 and their relationship with other demographic findings in the Mashhad University of Medical Sciences staff.

Method & material: In this cross-sectional study, 758 Mashhad University of Medical Sciences employees were randomly selected. Data were collected using a questionnaire that included demographic information, underlying diseases, history of the corona, and symptoms. Then, five ccs of peripheral blood were taken from the participants. The levels of IgG and IgM antibodies against SARS-CoV-2 were determined by ELIZA. Finally, the results of anti-coronavirus antibody tests were evaluated with the questionnaires obtained from participants by statistical analysis.

Result: The incidence of positive IgG was found in 138 participants (18.9%) and positive IgM in 41 participants (5.6%). Significant difference in the incidence of cough (p=0.013), fever (p0.001), duration of fever (p=0.027), chills (p=0.47), duration of headache (p=0.003), tightness of breath (p=0.001), loss of smell (p0.001), weakness (p=0.033), duration of weakness (p=0.038), myalgia (p0.001), arthralgia (p=0.001), duration of arthralgia (p=0.005), and duration of disturbance of consciousness (p=0.015) were between participants with positive and negative IgG. Furthermore, a significant difference in duration of cough (p=0.007), duration of weakness (p=0.004), and duration of myalgia (p=0.005) was found between participants with positive and negative IgM. Use of public transportation (p=0.033), travel (p=0.016), and use of a personal car (p=0.045), as well as going to work (p=0.021) and a number of times going to work.

Conclusion: This study showed that risk factors such as the use of public transportation, travel, and the use of a personal car, as well as going to work and a number of times going to work, were more frequent in participants with positive IgG or IgM. Also, symptoms such as cough, chills, shortness of breath, loss of smell, weakness, myalgia, and arthralgia were more common in participants with positive IgG or IgM, somehow indicating the predictive potential of these symptoms for COVID-19 infection.

G-1507

New drugs? No, thank you! We have enough of them: A Systematic Review of Machine Learning and Deep Learning Approaches for Drug Repurposing in Alzheimer's Disease

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Introduction: Alzheimer's disease (AD) is a neurodegenerative disorder marked by cognitive and behavioral impairment that may affect daily life. AD has already caught nearly 50 million people worldwide but there is still no proper cure for this condition and the available treatment only can help with the prevention of the disease's progress. Due to the unknown pathogenesis of AD, drug development processes can be extremely challenging. While there is evidence based on the possibility of using repurposed drugs to treat AD. Drug repositioning aims to propose new indications for drugs that are already marketed for other conditions. According to the large amount of data for investigating drug repurposing, using Artificial Intelligence (AI) algorithms such as Machine Learning (ML) or Deep Learning (DL) can be helpful. Therefore, in this systematic review in silico studies that used ML or DL approaches for AD drug repurposing were investigated.

Method & material: A comprehensive systematic literature search was conducted in electronic databases, including PubMed, Scopus, Embase, Web of Science, and Google Scholar, up to April 2023. Two independent reviewers evaluated the retrieved publications. All studies that used Machine Learning or Deep Learning to predict repurposed drug candidates for AD were included. Studies that met our inclusion criteria were then critically appraised by two authors independently. Data such as databases used in studies predicted medications, etc. were extracted.

Result: We retrieved 276 relevant publications in electronic databases. After thoroughly examining the titles and abstracts and removing duplicates (n=108) 36 studies remained. Full texts of these articles were reviewed, and ultimately 33 studies were included. Most of the studies used neural networks to predict the drug-disease or drug-drug relation. while a few predict possible repurposing candidates by. estimating drug-drug relations. Many of the studies used ML or DL algorithms to identify risky genes

Conclusion: There is a need to investigate the efficacy of reported candidates with clinical or preclinical studies. Some of the predicted candidates have already been investigated by such studies. This proves the accuracy of ML or DL approaches in drug repurposing for AD. While there is no proper medication for this condition the complicated process of drug development using ML and DL to investigate drug repurposing candidates can be helpful to overcome Alzheimer's disease.

G-1509

Mucuna pruriens, a Complementary Medicine for Parkinson's Disease: a Systematic Review of Preclinical Animal Studies

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Introduction: Parkinson's disease is a neurodegenerative disorder, that is characterized by the degeneration of dopaminergic neurons. Currently, available treatments only alleviate the symptoms and do not cure the disease. L-DOPA is the most effective treatment for restoring dopamine levels in the brain of Parkinson's patients. Mucuna pruriens, a plant that contains L-dopa, has been studied as a potential supplement to lower catalepsy in Parkinson's patients. Many studies have been conducted to evaluate the effect of Mucuna pruriens supplementation on Parkinson's patients. In this review, we aim to collect the data related to this research and study the effect of Mucuna pruriens in treating Parkinson's disease.

Method & material: An inclusive systematic literature search was carried out in the electronic databases including PubMed, Scopus, Web of Science, ProQuest, and Google Scholar, Embase up to February 2023 to conduct this systematic review. The saved publications were evaluated by two independent researchers, and then selected studies were critically appraised by the ARRIVE checklist for preclinical animal studies by two authors independently. All in-vivo studies related to the impact of Mucuna pruriens were included. Reviews, non-English, and in-vitro studies were excluded. Data such as active compound dose and type of administration, number, and performance of dopaminergic neurons, etc. were extracted. The extraction table was framed with extracted data.

Result: 586 relevant publications were retrieved from electronic databases. After thoroughly screening the titles and abstracts and removing duplicates (n=248) 107 studies remained. Full texts of these articles were reviewed, and ultimately 31 studies were included. Animal preclinical studies were included that used Parkinson-induced mice or rats as experimental subjects. Most of the included studies were related to the last 15 years. A wide range of Parkinson-related values such as tremors, dyskinesia, Ca2+ concentration, etc. were considered in the articles. Study results showed a significant neuroprotective effect of Mucuna pruriens in parkinsonism model animals. Even some articles investigated the effect of active compounds of this species in contrast to usual forms of L-DOPA (mainly used Parkinson's medication). The impact of velvet beans on behavioral syndromes of Parkinson's in animal subjects was considerable. ARRIVE appraisal checklist reported a low risk of bias for included studies.

Conclusion: Due to the lack of medication for Parkinson's disease, investigating new medications is of significant value. Herbal medications can be a proper replacement for Parkinsonism pharmacotherapy. Related to the high dose of L-DOPA in Mucuna pruriens derived compounds can help with Parkinson's symptoms.

G-1510

Drug to Drive; Effect of Non-benzodiazepine Hypnotics on Driving: A Systematic ReviewPerformance of Adult Drivers

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Introduction: Around one-third of the general adult population experience insomnia, which means they have trouble falling asleep or staying asleep, and they feel like their sleep is not restful. The choice drug for insomnia is sedative-hypnotics, including benzodiazepines and the newer benzodiazepine receptor agonists zopiclone, zolpidem, and zaleplon. Residual daytime sleepiness and lack of psychomotor and cognitive functioning the day after bedtime administration are significant problems associated with this type of medication. The related reduced attentiveness and slowed responses are specific problems for those who have to drive a car the morning after an evening dose. In this systematic review, a summary is provided to study the effect of non-benzodiazepine hypnotics on driving performance.

Method & material: To perform this systematic review, a comprehensive search was conducted through electronic databases such as PubMed, Scopus, Web of Science, ProQuest, and Google Scholar until February 2023 to collect relevant literature. The selected publications were then assessed by two researchers independently, and the studies relevant to the impact of non-benzodiazepine hypnotics on driving performance were appraised using the JBI checklist for clinical trials. Only clinical trials that focused on the effect of medication were considered, while reviews and studies that did not examine the impact of medication were excluded. Data such as medication dose and type, driving lapses and crashes, etc. were extracted and extraction table was edited by two reviewers.

Result: We collected 1946 relevant publications in electronic databases. After a thorough examination of the titles and abstracts, duplicate publications (n=795), reviews and studies not considering the effect of medications, 1681 of them were eliminated. 265 papers' full texts were examined, and ultimately 28 studies satisfied our inclusion criteria. Zolpidem, Zaleplon, Zopiclone and Eszopiclone were the notable medications for which the effects were examined. Different methods were used to assess driving performance affected by the medications above. 14 studies showed impairment caused by the non-benzodiazepine hypnotics, while 11 studies showed no effect caused by the mentioned medications.

Conclusion: Based on the data retrieved from the studies included in this review, the majority of papers showed impairment caused by the administration of non-benzodiazepine hypnotics, while the rest mostly showed no effect. As a conclusion, it is advised that patients experiencing insomnia avoid using the mentioned drugs when they intend to drive the morning after.

G-1511

Drug to Drive; Effect of Antiepileptics on Safe Driving of Epileptic Adults: A Systematic Review

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Introduction: Epilepsy is the most common serious neurological disorder. For epileptic patients, one of the remaining concerns for a better quality of life is approval for driving. One way to have seizures under control is by using antiepileptic drugs(AEDs). While AEDs result in seizure reduction in about two-thirds of the epileptic population, the adverse effects of some of these medications can affect several cognitive areas. As cognitive and visual processing abilities are crucial for safe driving, (AEDs) may harm driving performance. In this systematic review, a summary is provided to study the effect of AEDs on driving performance.

Method & material: To conduct this systematic review, an inclusive systematic literature search was carried out in the electronic databases including PubMed, Scopus, Web of Science, ProQuest, and Google scholar, Embase up to February 2023. Two independent researchers evaluated the saved publications, and then selected studies were critically appraised by the JBI checklist related to clinical trials by two authors independently. All clinical trials related to the impact of antiepileptic drugs on driving performance was included. Reviews and studies that weren't in English were excluded. Reviews and studies that didn't consider the effect of medication were excluded. Data such as medication dose and type, driving lapses and crashes and etc. were extracted and extraction table was edited by two reviewers.

Result: We retrieved 3067 relevant publications in electronic databases. After a thorough examination of the titles and abstracts, duplicate publications (n=783), reviews and studies not considering the effect of medications, 3030 of them were eliminated. Thirty-seven papers' full texts were examined, and ultimately five studies satisfied our inclusion criteria. A wide range of medications and their effect was examined throughout the studies. In three of these studies driving performance was assessed using a driving simulator test. In the other two a road-tracking test was carried out. Three studies showed that the driving performance was affected by the use of antiepileptic medications while two of the studies showed no effect. Results of appraisal checklist displayed a mid-rate to low risk of bias in the studies included.

Conclusion: Based on the data retrieved from the studies included in this review the majority of the studies show impairment caused by the consumption of antiepileptic drugs. Although there were some studies showing no effects caused by the use of the mentioned drugs. As a conclusion it is advised that epileptic patients use the medications with no effects while driving.

G-1513

Investigating the effect of Atorvastatin on the Expression of Apoptotic (BAX, Bcl-2) and Vascular Endothelial Growth Factor (VEGF) Genes in the Ovarian Tissue in Wistar Rats after induction of Premature ovarian insufficiency (POI) by Cyclophosphamide

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Introduction: Premature ovarian insufficiency (POI) is characterized by the reduction of follicular reserve and cessation of ovarian function before the age of 40. Chemotherapy drug cyclophosphamide (CTX) is one of the causes of premature ovarian insufficiency (POI) in young women undergoing chemotherapy, which causes increased apoptosis in ovarian granulosa cells (GCs) and damage to ovarian blood vessel endothelial cells through oxidative stress (OS) and DNA damage. Atorvastatin (ATV) has pleiotropic effects and is widely used in the treatment of blood cholesterol and cardiovascular diseases. In the present study, the effect of atorvastatin on the expression of apoptotic genes (BAX, Bcl-2) and vascular endothelial growth factor (VEGF) gene in the ovarian tissue of Wistar rats after induction of premature ovarian insufficiency (POI) by cyclophosphamide was investigated.

Method & material: 18 female Wistar rats were randomly divided into 3 groups (n=6) including control, POI (CTX: 50 mg/kg on the 1st day and 8 mg/kg for 14 consecutive days, IP), and POI+ATV (after POI induction by CTX, 10 mg/kg, ATV was injected intraperitoneally for 10 consecutive days). After the end of the treatment period, the ovaries were removed. The expression of pro-apoptotic (BAX), anti-apoptotic (Bcl-2), and vascular endothelial growth factor (VEGF) genes were determined using reverse transcription- polymerase chain reaction (RT-PCR) and calculated using the LIVAK method. Statistical analysis of the data was performed by using One-way ANOVA and Tukey's tests, the significance level was considered p0.05.

Result: POI caused a significant decrease in the expression of vascular endothelial growth factor (VEGF), anti-apoptotic (Bcl-2) genes (p0.001), and a significant increase in the expression of pro-apoptotic (BAX) gene (p0.001) compared to the control group. In the POI+ATV group, there was a significant increase in the expression of VEGF, and Bcl-2 genes (p0.05) and a significant decrease in the expression of the BAX gene compared to the POI group (p0.05).

Conclusion: The results demonstrate that atorvastatin can reduce the adverse effects of cyclophosphamide and improve ovarian function by increasing the expression ratio of Bcl-2/BAX and vascular endothelial growth factor (VEGF) gene.

G-1515

Nanotopography and biomaterial interactions new strategies in Ligament Regenerati

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Introduction: ligaments which are dense fibrous connective tissue, have limited regenerative capabilities. The risk shall be excluded when using autografts and allografts. So, new treatment methods, which play an essential role in tissue engineering and regenerative medicine studies, are provided by the selection of material types with appropriate design and cell based therapies promote a more functional healing.

Method & material: In this study, we examined the responsive behavior of the human adipose derived stem cells (hAD-MSCs) cultured on aligned and randomly oriented structures. That nanoscale architecture, were fabricated by electrospinning technology. In order to improve cell proliferation and matrix formation, use of 5 wt% glucosamine sulfate (GAS) as drug or supplement in polymer composite (poly (3-hydroxybutyrate)-chitosan/ multiwalled carbon nanotubes(PHB-CS/MwCNT (100:20:1)) solution, and one of the key components in the extracellular matrix (ECM). The surface morphology, hydrophilicity and tensile mechanical properties of the electrospun composite scaffolds were investigated.

Result: The fully porous and interconnected scaffolds have been observed according to our data. Aligned oriented structures could be important in determining the mechanical properties (2 fold) and release of glucoseamine sulfate provide cell adhesion and proliferation which are not obtained by either of these individual polymers. Biocompatibility studies show forming a monolayer of adherent cells in the all scaffolds and cells spread on the aligning nanofiber scaffold. Physical and chemical signals of structure, plays a critical role in the cell-biomaterial interaction and remodeling cytoskeleton.

Conclusion: This study highlights the potential of designing biomimetic fibrous scaffolds by using drug and stem cellsas a promising strategy for ligament and biological medicine.

G-1516

Challenges and Opportunities of e-Learning during the COVID-19 Pandemic: A systematic Review

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Introduction: The spread of COVID-19 is a threat to humanity because this epidemic has led to the closure of many global activities, including educational activities. Online learning was the best way to continue your education during the epidemic. The aim of this study was to analyze the opportunities and challenges of e-learning in the Corona era.

Method & material: A systematic review of studies by searching for the keywords COVID-19 Virus, Coronavirus Disease-19 , COVID-19 Pandemic , e-Learning in the title, abstract and keywords of valid scientific studies of Web of Science, Google Scholar databases , Scopus, PubMed were reviewed on June 6, 2022. The quality of the studies was assessed using the JBI checklist. Studies with a score higher than 7 were analyzed. This review was performed based on the preferential reporting case guidelines for systematic reviews and meta-analysis.

Result: A total of 374 articles were identified after removing duplicates. After screening the full text of the articles, 12 studies met the inclusion criteria. Online learning and the sudden implementation of education and online learning due to Covid-19 brings many challenges in the higher education industry. Student and student problems for adaptation; Connection, network and internet problems; Physical space and unsuitable environment; Mental health issues; Lack of basic needs; And the lack of educational resources and learning are the main challenges associated with the sudden change in online learning. Opportunities arising from Covid-19 include new approaches and tools for online learning and capacity building, online learning, a space for innovative thinking, and innovative solutions.

Conclusion: Corona pandemic on the one hand has increased skills and educational experience and on the other hand has caused physical, psychological, academic failure, burnout, but by anticipating the requirements and needs, planning and policy can virtual education Developed and used in the future as a supplement to face-to-face training.

G-1517

The Use of Mobile Applications In Medical Imaging, A Systematic Review

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Introduction: Smartphones are ubiquitous and their adoption in healthcare is growing. With the increasing digitization of health care in general and radiology in particular, the use of such devices in radiology is inevitable. : The purpose of this study is to investigate the use of mobile phone applications in the field of medical imaging, a systematic review.

Method & material: To achieve this goal, Scopus, Web of Science, and PubMed databases were evaluated for studies on the use of mobile phones in radiology. The search period was from 2000 to 2022 and a total of 15,680 articles were obtained. The quality of the studies was also evaluated based on the JBI checklist, after the review of the abstract and keywords by the researcher, 10 articles were included in the study.

Result: The types of image archive programs and communication systems currently running on mobile devices are: Merge Mobile, OsiriX, I Clarity, Mobile MIM, Resolution MD, Fujifilm Synapse. Applications of mobile phone-based programs in radiology include: 1-Diagnosis of oral, jaw and facial surgery 2-Interpretation of emergency CT scan 3-Tomographic evaluation of intracranial bleeding 4-Remote radiology for children 5-Remote consultation based on On the image in neurosurgery 6-Evaluation of emergency imaging.

Conclusion: we conclude that in emergency situations, a mobile phone device with a suitable program can provide an effective diagnosis in the shortage of radiologists.

G-1518

The relationship between serum brain-derived neurotrophic factor (BDNF) and cardiometabolic indices in schizophrenia

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Introduction: Schizophrenia(SZ)is a severe mental illness that affects about 24 million people(0.32%)worldwide.The interaction between genes and a wide range of environmental factors may cause schizophrenia.Studies have shown that schizophrenia with typical manifestations,including negative symptoms(hallucinations,delusions and disturbed behavior)positive symptoms(emotional bluntness apathy,and social withdrawal)and cognitive dysfunction(impairment of attention,learning,and memory).Several studies report reduced peripheral(blood)levels of BDNF in schizophrenia,but findings are inconsistent.Brain-derived neurotrophic factor(BDNF)is a neurotrophin widely expressed in the human brain.It plays a key role in regulating growth,differentiation and survival of neurons in brain development.BDNF controls the growth of dopaminergic,serotonergic GABA-ergic and glutamatergic neurons.BDNF exerts its action by activating tropomyosin-related kinase B(TrkB)receptors.In the hypothalamus,BDNF and its TrkB receptors inhibit food intake and increase energy expenditure,leading to negative energy balance.BDNF and its TrkB receptors are necessary for the development of blood vessels and the regulation of blood pressure control.Metabolic disorders such as obesity,glucose metabolism disorders and hyperlipidemia are common among patients with schizophrenia.

Method & material: This systematic review study aimed to investigate the relationship between BDNF and metabolic indices in patients with schizophrenia, which was conducted by searching Scopus, Pubmed, Google Scholar, and SID databases. To search, use the keywords schizophrenia , cardiometabolicindices , neurotrophic factor . After screening, 10 studies were included in our study

Result: In patients with schizophrenia, a significant decrease in mRNA expression of BDNF and TrkB receptors was observed in the frontal cortex, hippocampus, and dentate gyrus. Decreased BDNF gene expression leads to chronic hyperphagia, age-related obesity, and a resistant phenotype. It becomes insulin, which is characterized by increased levels of insulin, leptin and glucose in the blood circulation. Fasting blood sugar is negatively associated with cognitive factors. Higher lipid profile, especially TC and LDL serum levels were significantly associated with depressive symptoms and suicidal ideation in women with schizophrenia.

Conclusion: BDNF plays a role in regulating appetite, metabolism and energy homeostasis. Serum BDNF not only presents itself as a candidate biomarker of schizophrenia, but may also be a viable marker for metabolic diseases associated with schizophrenia.

G-1519

The Effect of Fast track Care on Patients with Orthopedic Fracture: A Systematic Review

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Introduction: Hip fractures are a serious healthcare problem associated with high mortality rates, functional decline, and a range of complications (i.e., cardiovascular, venous thrombotic, infectious and hemorrhagic) that can lead to prolonged hospital stays. To reduce the risk of surgical complications, various methods have been developed, including fast track care (FTC), which is a comprehensive approach to perioperative care that involves a multidisciplinary team of healthcare professionals working together to optimize patient outcomes and shorten hospital stays. Despite the potential benefits of FTC, there is a lack of information on its effects on patients undergoing orthopedic surgery. Therefore, the present study was conducted to address this gap in knowledge.

Method & material: This study followed Cochrane systematic review principles and PRISMA guidelines, and searched various scientific databases, including Cochrane CENTRAL, PubMed, Web of Science, and Scopus, as well as the Google Scholar search engine for grey literature. The search was conducted without time limitations, using keywords such as fast track care , orthopedic, fracture, and their related synonyms. The interventional studies focused on examining the results of providing fast track care in orthopedic patients. Articles without an abstract or full text, as well as those that did not provide definitive or conclusive also review studies and conference paper were excluded. Two authors conducted screening and data extraction independently, and any disagreements were resolved through consensus involving a third author. The ROB2 critical appraisal tool was used to assess the quality of the included articles, and the final data were presented in in an extraction table.

Result: A total of 1422 articles were found, and after removing 363 duplicates and 993 irrelevant titles and abstracts, the full text of 54 articles were assessed for eligibility . Finally 12 clinical trial studies were included in the study. The main outcomes were as fallows, with a significant deference between intervention and control group: decreased hospitalization time N=7/8(7 from 8 study showed significant difference) (87.5%), decreased pain severity (N=5), decreased complication N=3/5 (60% showed significant difference), post-op recovery (N=3), and physiological complication (N=3).

Conclusion: Overall, the use of fast track care in patients undergoing thoracic surgery appears to be a promising approach to improve recovery outcomes.

G-1521

Synthesis and characterization of antibacterial bionanocomposites based on carboxy methyl cellulose/ polyhedral oligomeric silsesquioxane for delivery of sunitinib malate

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Introduction: In the last two decades, great attention has been devoted to the design and synthesis of novel bionanocomposites with multi-functional applications. On the other hand, the fabrication of new bionanocomposites with antibacterial and anti-cancer properties is recently essential in the biomedical field. In this regard, the combination of natural polysaccharides with various types of nanoparticles could be considered an ideal drug delivery system with antibacterial properties. Carboxymethyl cellulose (CMC), an anionic natural polysaccharide, and polyhedral oligomeric silsesquioxane (POSS) nanoparticles could self-assemble and encapsulate various organic molecules from dyes to drugs. In this work, we tried to design and prepare a novel self-assembled drug delivery system to in-situ encapsulate sunitinib maleate and increase anti-cancer and antibacterial properties, simultaneously.

Method & material: Hydrolysis and condensation reaction was used to synthesize of POSS nanoparticles from (3-aminopropyl) triethoxysilane (APTES) as starting material in acidic media. The synthesized samples were characterized by using a Bruker Fourier transform infrared (FT-IR) spectrometer, Bruker D8 Advance diffractometer, VWGA3 TESCAN (20.0 KV) microscope field emission scanning electron microscope (FE-SEM), and transmission electron microscopy (TEM; Philips CM10 operating at 60 kV tension). Sunitinib malate-loaded CMC/POSS nanocomposite was prepared using an in-situ preparation method. To this end, clear solutions of CMC (solution A) and POSS nanoparticles (solution B) in the presence of drug solution were mixed and then separated by centrifuge.

Result: Various physicochemical analyses showed that CMC/POSS nanocomposite was successfully synthesized with honeycomb morphology. Drug release studies demonstrated that the sunitinib malate cumulative release percentages in acidic media were higher than in neutral media. Furthermore, the drug-loaded synthesized bio nanocomposite showed excellent antibacterial effects on both Escherichia coli (Gram-negative) and Staphylococcus aureus (Gram-positive).

Conclusion: In summary, in this work for the first time, a natural biopolymer (Carboxy methyl cellulose) could self-assemble with polyhedral oligomeric silsesquioxane (POSS) NPs and use as a novel drug delivery system for in-situ encapsulation of sunitinib maleate anticancer drug. Our results not only showed that in-situ encapsulation of sunitinib maleate by CMC/POSS bionanocomposite increased drug loading efficiency, but also demonstrated that the drug release rate in acidic media was higher than in neutral media. High antibacterial activity, drug loading efficiency, as well as pH-responsive release behavior of synthesized bionanocomposite made them an ideal hybrid material for the controlled release of sunitinib maleate.

G-1522

Evaluation of quality of life with rivaroxaban compared to enoxaparin of knee joint replacement patients in Iran

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Introduction: knee joint is one of the body's most important joints and is affected by various inflammatory diseases. These factors ultimately cause the destruction of joint cartilage and the loss of the function of the joint, which manifests in the patient as pain, joint instability, reduced range of motion, and deformity. This problem has many treatment methods, including drug therapy, lifestyle changes, weight loss, and surgical procedures such as arthroscopic debridement and osteotomies. All these methods reduce pain, but replacing the knee joint is one of the final solutions.

Method & material: The quality of life was investigated using the EQ-5D questionnaire in 203 patients with severe osteoarthritis. The patients had undergone surgery in a schedule and had used two drugs, rivaroxaban and enoxaparin, for the prevention of venous thromboembolism for one year. In this study, effectiveness was measured through the quality-adjusted life years index (QALY).To determine the QALY, when utility is determined, QALY is obtained by multiplying the time spent in a particular situation and the utility associated with that situation. Values of desirability to calculate QALY were also extracted from the five-dimensional, three-level European quality of life questionnaire. The weights of this questionnaire have been estimated by Gudarzi et al. for Iran. Based on the opinion of clinical experts and studies on the quality of life of the patients, it was measured three months after the knee joint replacement surgery through an interview with the patients. Pain intensity was

Result: Of the total of 203 patients studied, 97 had received rivaroxaban (47%) and 106 had received enoxaparin (53%). The average age of patients in the group receiving rivaroxaban and enoxaparin was 66 and 67, respectively. 27% of patients receiving rivaroxaban and 20% of patients receiving enoxaparin were male. The obtained desirability weights were 0.85 for rivaroxaban and 0.69 for enoxaparin.

Conclusion: The present study showed that the quality of life and the probability of prevention of venous thromboembolism in patients with osteoarthritis who used rivaroxaban drug are higher compared to patients who used enoxaparin drug after joint replacement surgery.

G-1523

Preparation of composite drug delivery system based on deoxycholic acid micelle and carboxymethyl cellulose hydrogel for simultaneous controlled release of 5-FU and dexamethasone

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Introduction: The topical drug 5-FU effectively prevents the growth and proliferation of cancer cells, despite the appropriate effectiveness of the drug in topical products, its use has side effects such as inflammatory and allergic reactions, and corticosteroid drugs, especially Dexamethasone can be effective. Therefore, the aim of this study was to investigate the construction of a drug release system based on carboxymethyl cellulose hydrogel and deoxycholic acid micelles for the delivery of 5-FU and dexamethasone drugs.

Method & material: The characteristics of the synthesized system such as morphology, size, surface charge was evaluated. In order to confirm the drugs loaded in the formulation, FT-IR technique was used. The release rate of two drugs from the final system was evaluated with the help of HPLC device and the toxicity tests of the drug carrier system were measured.

Result: The results showed the synthesized micelles have a spherical structure with an average diameter of 164 nm. The Zeta results indicate the positive charge of micelles at neutral pH, which after adding the drug, found a negative charge. The SEM images showed the hydrogel with proper dispersion of dexamethasone drug and the optimal size of the pores to load the micelles containing the drug. Drug release studies showed that the release of dexamethasone from the hydrogel was dependent on pH, and after adding micelles to the final system, this release was done in a controlled manner due to the interactions of dexamethasone with the micellar system. The release of 5-FU drug also occurred faster at pH=7.4 due to the nature of the polymers used in encapsulating the micelles. Cell results indicated the non-toxicity of hydrogel and synthesized micelles, which significantly increased toxicity after adding the 5-FU to the formulation.

Conclusion: The constructed carrier system can be used in the development of two drug delivery systems at the same time in order to increase the toxic effects of 5-FU drug and control its side effects.

G-1524

The impact of the Covid-19 Pandemic on Symptoms Experienced by Patients Suffering from Advanced Breast Cancer

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Introduction: The COVID-19 pandemic swept through society like a tornado and caused significant challenges for patients, particularly those with end-stage cancers. However, the exact impact of this pandemic on the symptoms of these patients is still unknown. To address this gap, we conducted a study comparing the symptoms of end-stage breast cancer patients (as one of the most common cancers) before and during the COVID-19 pandemic.

Method & material: In this retrospective cross-sectional study, the symptoms recorded by palliative care physicians during homecare visits of patient with advanced breast cancer, were analyzed. the data were recorded during two 18-month periods, before COVID-19 outbreak in Iran (from June 22nd 2018 to December 22nd 2019) and during (from march 20th 2020 to September 20th 2021) the COVID-19 pandemic. Patient information includes demographic information, medical history, and the clinical symptoms experienced in final 6 months of life (collected via "Memorial Symptom Assessment Scale – Short Form, MSAS-SF). Kolmogorov–Smirnov test was used to evaluate data distribution. Then, independent T-test and Mann-Whitney U test was used to compare quantitative variable between the two time frames as appropriate. Chi-square test was used to analyze qualitative variables.

Result: The study evaluated 386 cases of breast cancer, including 195 patients (mean (SD) age, 60.0 (14.1) years) before the COVID-19 pandemic and 191 patients (mean (SD) age, 60.2 (13.9) years) during the pandemic. The prevalence of symptoms among cancer patients was compared between these two groups of patients. Significant increases were observed in the prevalence (%) of itching (9 (4.6%) vs. 19(9.9%); p0.05), mouth sores (19 (9.7%) vs. 35(18.3%); p0.05), difficulty swallowing (31 (15.9%) vs. 48(25.1%); p0.05), difficulty sleeping(48 (24.6%) vs. 93(48.7%); p≤0.001), feeling drowsy(36 (18.5%) vs. 56 (29.3%); p0.05), shivers (2 (1.0%) vs. 9 (4.7%); p0.01) and significant decreases were observed in the prevalence (%) of irritability (40 (20.5%) vs. 21 (11.0%); p0.01). The changes in 25 other clinical symptoms were not statistically significant.

Conclusion: This study identified remarkable alteration in prevalence of seven symptoms experienced by patients with advanced breast cancer during SARS-Cov-2 outbreak. This finding highlights the necessity of Development of healthcare policies to monitor the latent effects of future pandemics in vulnerable populations is also a necessity. It's important to acknowledge that this research could serve as a foundation for future investigations aimed at identifying the underlying reasons for this observation.

G-1525

Beneficial Effects of (Quadro Herb) Ointment Based on Extracts of Medicinal Plants: Scrophularia Striata, Artemisia Aucheri, Falcaria Vulgaris, and Aloe Vera on Second-Degree Burs; an In-Vivo Wound Healing Study

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Introduction: Burn injuries are known as one of the main reasons for hospitalizations across the globe. Among all types of burn traumas, scalds which are considered wet burns, are more common. many procedures are used to manage the wound healing process; using topical ointment like silver sulphadiazine 1% (SSD 1%) is one of those routine ways; But nowadays, traditional medicine findings along with modern medications can cooperate to lead a perfect wound care. thus, the usage of medicinal plants is suggested for this purpose; Regarding this statement, the present study aims to investigate the beneficial effects of QH (Quadro Herb) ointment based on extracts of medicinal plants: Scrophularia Striata, Artemisia Aucheri, Falcaria Vulgaris, and Aloe Vera on Second-Degree Burn Scald at In-Vivo.

Method & material: 42 male Wistar rats with a mean weight of 250 ± 50 g were grouped into 7; after induction of burn scald by the use of hot water, treated groups received QH ointment in concentrations of 0.5%, 1%, 2%, and 5% in respect to herbal extracts; wound healing process was monitored for 16 days and the results were statistically analyzed and compared to treated group with SSD 1% and control groups. At the final day of intervention, rats were sacrificed and skin biopsies used for histopathological evaluations

Result: Significant reduction of wound percentage ($P \leq 0.05$) among 2% and 5% groups showed that QH ointment performed better in wound healing compared to the control and positive control groups. Histological analysis also revealed significant increases in granulation and vascular-fibroblast density with 5% of QH ointment ($P \leq 0.01$). No significant changes in inflammation were observed.

Conclusion: It concludes that QH ointment containing the extracts of S. Striata, A. Aucheri, F. Vulgaris, and A. Vera has remarkable effects in the healing of second-degree burn scalds. Thus, it could be recommended to apply for burn injuries as a remedy.

G-1526

Design and Formulation of Mucoadhesive Buccal Nanofilm of Pramipexole and Evaluations of Their Physicochemical Properties

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Introduction: Today, polymer nanoparticles are focused on creating more effective methods in the treatment of diseases. Today, making pharmaceutical forms that have higher acceptability than old forms of drugs such as tablets and injectable products is considered as one of the fields of activity of pharmaceutics science. Pramipexole is a non-ergot dopamine agonist that specifically agonizes D2 receptors. This drug is used both as a monotherapy and as an auxiliary drug in the treatment of Parkinson's disease. The aim of this project is to produce a kind of bio-adhesive nanofilm of Prami-Pexol drug in order to solve the challenges of Parkinson's patients.

Method & material: First, 1% chitosan solution was added to the surfactant solution containing Tween 80 and span, and then pramipexol was slowly added to it in a water-soluble form using an insulin syringe. In order to strengthen the polymer network, ethanol was added and then the resulting nanoparticles were coated with Eudragit polymer. Finally, nanoparticles were loaded on the polymer film obtained from the combination of three polymers HPMC, carbopol and ethyl cellulose

Result: After evaluating the nanoparticles by electron microscopy, it was found that the dimensions of the nanoparticles are between 15 and 25 nm, and the percentage of drug loading in the nanoparticles is 51%, and no effect of the cytotoxicity caused by the nanoparticles was observed on fibroblast cells. Polymer films show different releases depending on their ethyl cellulose polymer content, and in all of them, the release pattern follows the first-order model

Conclusion: Due to the reduction of drug metabolism due to the use of the capillary network of the buccal region of the mouth, it is possible to use the polymeric adhesive mucus films containing pramipexol nanoparticles as one of the newest products in the treatment of Parkinson's disease and restless leg syndrome

G-1527

Effectiveness of Simulation-Based Training in Nursing Education: A Systematic Review and Meta-Analysis

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Introduction: Simulation-based training in nursing education has been considered as a valuable approach to improve clinical skills and increase patient outcomes. This systematic review and meta-analysis aims to evaluate the effectiveness of simulation-based training in nursing education.

Method & material: A comprehensive search was conducted in electronic databases including PubMed, CINAHL and Scopus. The search included studies published between 2010 and 2021. Randomized controlled trials and quasi-experimental studies that evaluated the effect of simulation-based training on clinical competencies and functional outcomes of nursing students were included in the review.

Result: A total of 25 studies met the inclusion criteria and were included in the meta-analysis. These studies used different types of simulations, including high-quality mannequins, virtual reality simulations, and standardized patients. Findings showed that simulation-based training significantly improved nursing students' clinical competencies, including knowledge mastery, technical skills, critical thinking, and decision-making abilities. In addition, simulation-based training had a positive effect on students' confidence, communication skills, and overall satisfaction with the learning experience.

Conclusion: This systematic review and meta-analysis provides strong evidence in support of the effectiveness of simulation-based education in nursing education. The use of simulation allows students to develop their clinical skills in a safe and controlled environment and also improves patient care outcomes. It is recommended to integrate simulation-based education into nursing education programs and prepare practicing nurses for real clinical settings.

G-1528

Virus-Like Particles (Vlps) from Synthesis to Targeted Drug Delivery, Vaccine Approaches, and Gene Therapy

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Introduction: VLPs are made when the proteins from a virus form by themselves. VLPs look and act like real viruses, but they don't have any viral DNA. When proteins of a virus stick together, they can form structures called VLPs. These structures often have a repeated shape like a sphere or a rod. Scientists can also add special molecules to the VLPs to help them find and kill cancer cells while bringing other cells to help.

Method & material: VLPs are being used to deliver drugs to tumors for cancer treatment. Making sure the drugs get to the tumors is the main goal of VLP design. In cancer treatment, we need to aim the diagnosis or medicine at only the cancer cells and not harm any healthy cells or tissues. VLPs are a new way to give medicine to a certain area of the body, which helps to lower the chance of hurting healthy cells. Immunotherapy helps the body's immune system and is less likely to cause bad effects. Cancer vaccines help our body fight against cancer cells by making our immune system stronger

Result: There are several challenges when it comes to creating, cleaning, and keeping eVLP vaccines. We need to figure out how long the vaccine stays effective, and make sure it lasts a long time. This is very important. Multimeric VLP vaccines are more stable than subunit vaccines, but they can become unstable if the environment changes, especially after further treatment. This is because they don't have a viral genome. The virus-like particles that have a cover made from the host are easily affected by the environment compared to the ones that only have proteins

Conclusion: VLPs have special qualities that make them good for making vaccines and delivering medicine directly to where it's needed. VLPs can be taken apart and put back together or join up on their own. This makes them useful for putting drugs inside or targeting specific areas. VLPs can also safely trigger the body's immune system without causing harm. This means they can be used as medicine without worrying about side effects. Moreover, using VLP-focused ways to deliver cancer treatment may make it stronger and safer, resulting in fewer negative effects

G-1529

The effect of 6 weeks of aerobic training on cerebral oxidative stress and neuroinflammation caused by ethanol consumption in rats

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Introduction: Chronic and excessive consumption of ethanol causes oxidative stress and neuroinflammation in the brain. Aerobic exercise is known to be a protective factor for brain health. The aim of this study was to investigate the effect of 6 weeks of aerobic training on cerebral oxidative stress and neuroinflammation caused by ethanol consumption in rats.

Method & material: Twenty-four rats were randomly divided into three groups: control group, ethanol group, and aerobic training + ethanol group. The ethanol group consumed 2% ethanol by weight in desalinated water for 6 weeks. Aerobic exercise + ethanol group also had access to a classified aerobic exercise program under free supervision for 6 weeks. After the end of the training period, biochemical and molecular analyzes were performed on the brain samples.

Result: The results showed that ethanol consumption led to an increase in brain oxidative stress with a decrease in antioxidants and an increase in inflammatory markers including TNF-? and IL-1?. However, aerobic training for 6 weeks can reverse the negative effects of ethanol. Aerobic exercise led to a decrease in cerebral oxidative stress by increasing antioxidants and decreasing the level of inflammatory markers.

Conclusion: In this study, aerobic exercise for 6 weeks showed that it can effectively affect brain oxidative stress and neuroinflammation caused by ethanol consumption in rats. These results show that aerobic exercise can act as an effective prevention and treatment method in dealing with the harmful effects of excessive ethanol consumption on the brain.

G-1530

The effect of folic acid in improving memory impairment caused by lithium consumption in rats during pregnancy

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Introduction: Memory impairment caused by lithium consumption is one of the important side effects in the treatment of some mental disorders. In this study, in collaboration with Torbat Heydarieh University of Medical Sciences, the effect of folic acid in improving memory impairment caused by lithium consumption in pregnant rats was investigated.

Method & material: In this research, pregnant rats were divided into six groups: control group, lithium group, low dose lithium + folic acid group, medium dose lithium + folic acid group, high dose lithium + folic acid group. , and the lithium+vitamin C group. The rats in the lithium group received lithium, and the rats in the other groups were treated with folic acid or vitamin C. Then their memory performance was evaluated using the Morris Water Maze and Passive Evidence tests.

Result: The results showed that lithium consumption caused memory disorders in rats. But the treatment with folic acid in different doses caused a significant improvement in memory performance. Also, the consumption of vitamin C could improve memory function.

Conclusion: In this study, the use of folic acid in the treatment of memory impairment caused by lithium consumption in pregnant rats resulted in a significant improvement in the memory function of their offspring. These results show that folic acid can be used as an effective treatment in reducing the side effects of memory impairment caused by lithium consumption during pregnancy.

G-1531

Effects of PMS50 supplementation on mood swings associated with premenstrual syndrome: A randomized double-blind clinical trial

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Introduction: Premenstrual syndrome (PMS) is a set of physical and psychological symptoms during the luteal phase of menstruation which affects about 70%–90% of women of reproductive age. The common psychological symptoms associated with this syndrome is mood swings which significantly affects personal, social life. PMS50 is a dietary supplement containing vitamins B1, B2, B6, E, D3, magnesium and dried extract of vitex agnus. Regarding the high prevalence of PMS and its effect on women's lives and the lack of a study evaluating the effects of supplementation with PMS50, this study aimed to investigate the effects of PMS50 supplementation on mood swings associated with PMS.

Method & material: This double- blind clinical trial study was conducted on 50 students with PMS residing at dormitories of Ahvaz Jundishapur University of Medical Sciences, between December 2018 and March 2019. The inclusion criteria was women (aged 25–35 years) with PMS, normal body mass index (18.5–24.9), regular menstrual cycle and no history of mental illness. Women who had irregular menstrual cycle or used psychological medicines or vitamin supplements were excluded. A sample size of 25 individuals in each group (50 individuals in total) was calculated according to Mousavi et al, using the formula with 90% power. Participants were randomized to receive either PMS50 supplement (n=25) or placebo (n=25) (550 mg/d) for three cycles and completed the Rossignol & Bonlander questionnaire. This questionnaire was validated by Mortola et al. The main measured variables was mood swings. Randomization occurred in a 1:1 ratio using block randomization.with both participants and researchers blind as to the

Result: To control of confounding factors, anthropometric indices, physical activity, dietary intake (macronutrients and some micronutrients including vitamins B1, B2, B6, E, D3 and magnesium) and severity of PMS were evaluated at baseline and there was no significant differences between groups. The mean age in the intervention and placebo groups was 28.48 ± 4.11and 29 ± 3.92 years (P=0.662). After three months, a significant reduction was observed in the mean scores of mood swings in the intervention group (from 11.04±3.12 to 7.56±3.07, 5.17±2.21, 3.09±1.14 after one,two and three months, respectively.) compared with the control group (P0.001).

Conclusion: PMS50 supplementation may be effective in improvement of mood swings related to PMS . However, further studies are required to advocate this findings.

G-1532

Evaluation of treatment adherence and related factors in patients with asthma in Sanandaj in 2021

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Introduction: Drug regimens for the treatment and control of asthma are very vulnerable in terms of adherence to treatment due to the need for long-term use, the use of multiple drugs that are mainly prescribed by inhalation, and the variable periods of symptom improvement. Identifying specific reasons for non-adherence is essential in order to determine the best way to intervene and improve asthma control.

Method & material:: 385 patients with asthma in Sanandaj who met the criteria for entering the study and at least 6 months had passed since the beginning of their treatment were evaluated by demographic information and treatment compliance questionnaires. The information obtained from the questionnaires was recorded in SPSS software and data analysis was done using Stata 14 software. The significance level in this study was considered P0.05.

Result: The average score of treatment compliance was 131.17 ± 26.01. The degree of adherence to treatment had a significant and inverse relationship with the age of the subjects. Regarding the marital status, the treatment compliance score of unmarried people was higher than other groups. Also, with the increase in the level of literacy of people with asthma, their compliance with treatment also increased. Occupation and income affect the degree of compliance with treatment, so that compliance with treatment was more in employed people and less in unemployed people. People whose treatment was multi-drug also had less adherence to treatment than single-drug people

Conclusion: From the present study, it can be concluded that the average score of adherence to treatment in our studied community in Sanandaj city is at an average level. Based on the rating of most people, i.e. more than 54%, they had a good level of adherence to treatment, and none of the subjects under study had poor adherence to treatment. In our study, the factors that influenced the adherence to treatment include: age, marital status, literacy level of people with asthma, job and income, multi-drug or mono-drug treatment. In general, the poor compliance of patients with asthma, for whatever reason, can lead to irreparable complications and ultimately impose a greater burden on health care systems. The collection of findings of this research states that in order to increase compliance with treatment in a patient, it is necessary to identify these influential factors and plan to eliminate them.

G-1533

The effects of purslane consumption on blood pressure, body weight, body mass index, and waist circumference: A systematic review and meta-analysis of randomized controlled

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Introduction: Obesity and overweight, which are frequently recognized as substantial health risks on a global scale, have a considerable impact on a number of non-communicable diseases, including diabetes, cardiovascular disease (CVD), and cancer. More than 1.9 billion adults over the age of 18 were found to be overweight in a World Health Organization (WHO) report. Medicinal plants have been used for a long time to control obesity and are linked to better and faster weight loss. One of the most significant medicinal plants is purslane. Omega-3 fatty acids, beta-carotene, tocopherol, glutathione, amino acids, ascorbic acid, and phenolic compounds are only a few of the biologically active ingredients found in them. The effects of purslane consumption on anthropometric measurements and blood pressure have been studied in numerous experiments. However, the research findings conflict with one another. In order to assess the impact of purslane on weight, body mass index (BMI), waist circumference

Method & material: This systematic review and meta-analysis were conducted and reported using the PRISMA (Preferred Reporting Items for Systematic Review and Meta-analysis) protocol. The study's protocol has been registered in the PROSPERO (CRD42023427955). Up until February 2023, PubMed, Web of Science, Scopus, Google Scholar, and the reference lists of the identified pertinent randomized controlled trials (RCTs) were all searched. We used a combination of MeSH and non-MeSH terms, including (Portulaca OR Portulaca oleracea and Purslane) AND (Controlled clinical trial OR Randomized controlled trial OR Trial OR Randomized OR Randomly). DerSimonian and Laird models were used to calculate effect sizes. In a random-effects meta-analysis approach, the total effect was shown as a weighted mean difference (WMD) and 95% confidence interval (CI).

Result: The systematic review was able to incorporate seven RCTs with 360 participants. Meta-analysis showed that purslane significantly decreased body weight (Weighted mean difference (WMD): -0.73 kg, 95% confidence interval (CI): -1.37, -0.09, P=0.025), BMI (WMD: -0.35 kg/m2, 95% CI: -0.64, -0.07, P=0.016), and SBP (WMD: -3.64 mmHg, 95% CI: -6.42, -0.87, P=0.01), and for WC, there was no discernible effect (WMD: -0.86 cm; 95% CI, -1.80 to 0.07; P=0.06) and DBP (WMD: -0.36 mmHg; 95% CI, -1.75 to 1.03; P=0.61). Purslane consumption, especially in participants with a BMI 30, might play a role in decreasing SBP, body weight, BMI, and WC.

Conclusion: Existing evidence from RCTs in this meta-analysis suggests. Supplementing with purslane considerably lowered body weight, BMI, and SBP; however, WC and DBP did not see a decreasing effect. To confirm the effect of purslane supplementation on anthropometric measurements and blood pressure, more research is required.

G-1535

The effects of Garcinia cambogia (hydroxycitric acid) on glycemic control and liver enzymes: A systematic review and meta-analysis of randomized controlled trials

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Introduction: In the current world population, metabolic diseases like liver disease, cancer, diabetes, and cardiovascular disease are more common. Garcinia cambogia (GC) is a pumpkin-like fruit about the size of an orange. GC is effective in treating metabolic diseases such as non-alcoholic fatty liver, diabetes, obesity, and lipid disorders. Previous studies on GC use of metabolic indices such as insulin, blood glucose, ALT, and AST have had different results. Investigating the impact of GC on liver enzymes and glycemic control was the goal of this systematic review and meta-analysis.

Method & material: Searches were conducted from the beginning through February 9, 2023, using online databases (Web of Science, PubMed, Google Scholar, and Scopus) according to the following protocol: (Garcinia cambogia OR Hydroxycitric Acid) AND (liver enzyme OR alanine aminotransferase OR alanine transaminase) AND (HbA1c OR fastin plasma glucose OR HOMA-IR OR Fasting blood sugar). The changes in the levels of fasting blood sugar (FBS) and insulin, alanine transaminase (ALT) and aspartate transaminase (AST) serum, were the main concern. In a random-effects meta-analysis approach, the total effect was shown as a weighted mean difference (WMD) and 95% confidence interval (CI).

Result: This systematic review and meta-analysis included nine trials with 444 participants. The random-effects model's overall findings showed that taking GC consumption did not significantly alter FBS levels (WMD: 1.02 mg/dl, 95% CI: -1.29, 3.33, P=0.378), insulin levels (WMD: -0.12 mU/L, 95% CI: -1.50, -1.25, P=0.861), ALT (Hedges' g: 0.27, 95% CI: -0.20 to 0.73, P=0.264), and AST (Hedges' g: -0.08, 95% CI: -0.43 to 0.26, P=0.632). Also, in studies the mean BMI of participants was ≥ 30 kg/m2, FBS and insulin increased following GC consumption.

Conclusion: This meta-analysis based on current published clinical trials showed that supplementation with GC has no significant effect on FBS, insulin, ALT, or AST levels. However, increasing the duration of the intervention seems to have reduced effects on insulin levels. Therefore, additional high-quality research is required to confirm the aforementioned findings.

G-1536

investigation the research barriers in Iran from the viewpoint of faculty member of medical universities: A systematic review

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Introduction: Research serves as a fundamental pillar for a nation's progress, playing a crucial role in scientific advancement, educational enhancement, and cultural prosperity. Universities, being the primary hubs for knowledge generation, bear significant responsibility in conducting research activities. Given the challenges faced by medical science journals in securing reliable database indexing, this study aims to investigate the primary obstacles encountered by faculty members in Iranian medical sciences universities when conducting research.

Method & material: By utilizing the keywords research barriers research obstacles and research we conducted a comprehensive search across various databases including Google Scholar, Scopus, Magiran, SID, and PubMed. The search was conducted within the timeframe of 2010 to 2023 and resulted in a thorough review of 20 articles pertaining to the subject matter.

Result: The findings revealed that various categories encompass the research obstacles faced by faculty members in Iranian medical sciences universities. These categories include organizational and managerial factors, individual factors, educational factors, and facilities. Specifically, these obstacles encompass the following aspects: limited time and high workload, time-consuming administrative tasks, overwhelming number of activities, insufficient research experts and consultants, lengthy approval process for research projects, limited application of research results in society, inadequate evaluation of research performance, absence of a strong research culture in society, lack of preparation and cultivation of research mindset prior to university, absence of comprehensive chapters on research methods, inadequate research facilities and resources, inadequate mastery of diverse research methods, significant time delay between article submission and publication, reluctance to engage in collaborative research endeavors, discrepancies in statistics provided by different organizations, limited encouragement and motivation for researchers, insufficient financial support, and low income from research projects.

Conclusion: In essence, the research findings highlight that both individual and organizational factors serve as obstacles that impact research activities. Consequently, it becomes crucial to implement effective strategic management of the research process, streamline administrative challenges, utilize research project outcomes, and focus on human resources in order to enhance the research landscape. Furthermore, the pre-university education system can play a significant role in promoting research by incorporating relevant courses and extracurricular activities. Additionally, it is necessary to revise existing strategies and regulations pertaining to research, aiming to facilitate the research process and provide researchers with adequate material and emotional support.

G-1537

The Relationship between nursing managers competencies with job satisfaction and turnover intention among nurses: A descriptive-correlation study

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Introduction: Nursing managers play a crucial role in maintaining a conducive work environment and nursing workforce, but the required competencies for such a role are largely unknown. This study aims to determine the relationship between the competencies of nursing managers and job satisfaction and intention to leave among employed nurses in educational and medical centers in Ardabil.

Method & material: This descriptive-correlational study was conducted on 422 nurses from educational and therapeutic hospitals in Ardabil. To collect the data, the Competency of Nursing Managers questionnaire, intention to leave, job satisfaction, and socio-demographic information form were used. Descriptive statistics (frequency, percentage, mean, and standard deviation) were used for analyzing individual characteristics, while inferential statistics (Pearson's correlation coefficient, independent t-test, analysis of variance, and multiple linear regression) were used for hypothesis testing.

Result: The overall competency level of nursing managers was 3.15 out of 5 (SD = 0.859). The findings indicate that 3.38% of nurses were dissatisfied with their current job, and 3.33% of nurses are considering leaving their current workplace. Linear regression analysis showed that "communication and teamwork" (B = 0.289; p = 0.002), "support and employee development" (B = 0.266; p = 0.001), and "supervision and quality monitoring" (B = 0.432; p = 0.005) were predictors of nursing managers' competency, explaining 3.42% of the total variance.

Conclusion: The findings of this study have practical implications for future recruitment, training, and performance evaluation of nursing managers.

G-1538

the accuracy and reliability of diagnosis in Teledermatology

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Introduction: Patients even in remote areas can easily access dermatologists thanks to advancements in technology and telemedicine, and the cost and wait time for a visit can be decreased.But are the teledermatology methods reliable in diagnosing skin diseases? The objective of this systematic study is to analyze the accuracy of teledermatology methods and their efficiency compared to clinical assessment.

Method & material: Five databases (PUBMED, Cochrane, Science Direct, Embase, and Web of Science) were searched for studies comparing teledermatology with face-to-face clinical assessment (as the gold standard) with regard to accuracy and reliability of diagnosis on June 2023. Finally, 25 articles matched our established criteria.

Result: The remaining twenty-five studies were reviewed. In many studies, there was a good agreement between teledermatology and clinical assessment (more than 60% on average), while in some studies, the diagnostic agreement between the two methods was poor. Generally, face-to-face primary diagnoses are more accurate than tele-dermatology diagnoses.

Conclusion: Despite the fact that face-to-face diagnoses are more reliable than teledermatology diagnoses, using teledermatology is still useful for patients who do not have proper access to a dermatologist and for screening to some skin diseases.

G-1539

In vitro study of proliferation and neural differentiation of PC12 and B65 cells on PCL/CQD/Moringa extract scaffold

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Introduction: The nervous tissue has a limited regeneration capacity. So researchers are still looking for promising cures for neurodegenerative disorders. Among all approaches for nerve regeneration, nerve tissue engineering is one of the most beneficial methods. According to literature, polycaprolactone (PCL) and Carbon quantum dots (CQDs) with suitable properties like biodegradability, biocompatibility and mechanical properties are good choices for neural studies. Additionally, moringa oleifera with high nutritional and ethnomedical properties has been used to improve neural effects of the scaffold. So we investigated the effect of PCL/CQD/Moringa scaffold on proliferation and neural differentiation of PC12 and B65 cells.

Method & material: After synthesis and characterization of CQD, using PCL, CQD (0.5%) and moringa extract (1 and 2%) scaffolds were fabricated by electrospinning in four groups: PCL, PCL/CQD, PCL/CQD/MOR1 and PCL/CQD/MOR2. Then scaffolds were evaluated using SEM, and mechanical properties were measured using a tensometer. Neuroblastoma (B65) and pheochromocytoma (PC12) cell lines were used to investigate biocompatibility of the scaffolds by SEM, DAPI and MTT tests on days 1, 7 and 14. Also to investigate the effect of scaffolds on cell differentiation, real-time PCR for GAP43 and NF200 genes were performed on day 14.

Result: The SEM results showed that in all groups of electrospun scaffolds, the fibers are parallel and have appropriate porosity. Adding moringa extract increase tensile properties of scaffold superiorly. The MTT, SEM and DAPI data showed the cells on the scaffold containing the extract had much more proliferation than the PCL scaffold and the PCL/CQD scaffold. Also, cell proliferation on the PCL/CQD scaffold is better than the PCL scaffold. Moreover, the increase in the concentration of the extract increased cell proliferation. The results of the real-time PCR showed that the scaffolds containing Moringa extract increase expression of neural markers NF200 and GAP43 of cells more than other scaffolds, and this increase is directly related to concentration of the extract.

Conclusion: The aligned electrospun PCL fibers containing CQD and moringa extract along with an appropriate uniform diameter of nanofibers and mechanical properties showed a great potential to promote cell viability and differentiation of PC12 and B65 cells.

G-1540

Comparison of the frequency of atopic dermatitis in patients with and without irritable bowel syndrome referred to the gastrointestinal clinic in Mashhad in 2020-2021

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Introduction: Irritable Bowel Syndrome (IBS) is a chronic functional gastrointestinal condition that is characterized by symptoms like bloating, diarrhea or constipation, changes in bowel habits, and abdominal pain. Atopic dermatitis (AD), is a chronic skin condition characterized by dry, itchy, and inflamed skin. It is caused by a combination of genetic and environmental factors, and is often associated with allergies or asthma. The condition can occur at any age, but is most common in children. Purpose: Considering the role of allergy in both IBS and AD diseases, we decided to compare the frequency of atopic dermatitis in patients with and without irritable bowel syndrome who referred to the gastroenterology clinic in Mashhad in 2020-2021

Method & material: This case-control study was conducted on 102 patients with irritable bowel syndrome based on ROME-IV criteria and 102 patients in the control group. Patients were diagnosed with Atopic dermatitis based on the Hanifin Vrajka criteria, and the severity of dermatitis was determined based on the SCORAD index.

Result: In this study, 102 people in each group were examined according to the number (in the patient group: 83 women, 19 men) and (in the control group: 68 women, 34 men) with the same average age in each group. There was a statistically significant difference between the frequency of active atopic dermatitis and its history in the group with irritable bowel syndrome and the control; So, this frequency was higher in the group of patients with irritable bowel syndrome (P-value = 0.046). Also, the prevalence of atopic dermatitis in women with irritable bowel syndrome was higher than women in the control group (Pvalue = 0.01). However, based on the results of our study, the severity of atopic dermatitis in the group with irritable bowel syndrome and the control had no statistically significant difference. (P-value 0.05).

Conclusion: the frequency of active atopic dermatitis and its history is higher in the group of patients with irritable bowel syndrome. These results may indicate a link between AD and IBS.

G-1542

Development of a Clinical Guideline for Aluminum Phosphide Poisoning in Pre-hospital Setting

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Introduction: Acute poisoning, including rice pill poisoning, is considered a health and psychological problem. The first line of the Ministry of Health in this regard is the pre-hospital emergency. But due to the lack of clinical guidance they encounter challenges. In order to be effective and integrate effective measures, developing a clinical guide can be a good strategy to get out of this situation. Therefore, this study was conducted with the aim of developing a clinical guide for aluminum phosphide poisoning (rice tablets) in pre-hospital emergency.

Method & material: The current research is a combination of Delphi and Rand methods, which was conducted in 2022-2023 with the involvement of 20 experts from Tehran, Mazandaran and Babol Medical Sciences. The included criteria were at least 5 years of work experience related to aluminum phosphide poisoning, having at least a master's degree, and willingness to cooperate in this project. Sampling was selected purposefully. The unwillingness to cooperate with the research team during research was the excluded criteria. This study was conducted in five stages including: library and electronic search from Cochran Database, Science Direct, Pubmed/Medline, Elsevier, and Google Scholar search engine. The second stage was the quality appraise of papers, formal and content validity, the panel of experts, and the publication of the final version of the clinical guide.

Result: The average work experience of the experts was 13.15±7.95, most of them were men (15 cases (75%), specialized doctorate education in 10 cases (50%), and employed as a faculty member in 8 cases (40%). Most of them worked in the profession of nursing 10 cases (50%) and the least of them worked in the profession of neurology, urology and biochemistry 1 case each (5%). In the assessment part, 6 cases (can be done by the BSc and MSc emergency medical technician), 7 cases in setting goals and outcome (only by the MSc emergency medical technician), interventions 18 cases (can be done in 7 items by the BSc of emergency medical technician, 11 items by the MSc emergency medical technician) Senior Medical Emergency) and evaluation of 9 cases (1 item by BSc of emergency medical technician and 8 items by MSc emergency medical technician) were recommended and finalized by experts.

Conclusion: A clinical guide based on the nursing process, leveling of feasibility, and experts' opinion were developed. It is recommended to use this clinical guide in pre-hospital emergency. Also, future studies can show the effects before and after using this clinical guide in pre-hospital emergency.

G-1543

The Protective Effects of Honey with Different Total Phenolic Content Against Cytarabine-Induced Hematological Changes in Rats

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Introduction: Cytarabine is a well-established treatment for leukemias, but its use is hampered by side effects on healthy cells. Scientists are therefore seeking substitutional options to enhance cytarabine's effectiveness and reduce its toxicity. Honey for its wide range of medicinal properties, considers a well-known remedy in traditional medicine. It also contains plenty of phenolic compounds that could potentially provide anticancer effects. This study aims to assess the protective effects of honey samples classified based on total phenolic content (TPC) against cytarabine-induced hematological changes in rats.

Method & material: Thirty male Wistar rats were randomly allocated to five groups: control, cytarabine, cytarabine + honey (low TPC), cytarabine + honey (moderate TPC), and cytarabine + honey (high TPC). Relevant groups were orally given honey pretreatment (1200 mg/kg) daily for 30 days before cytarabine injection. Subsequently, cytarabine (100 mg/kg) was injected daily for six days through the i.p. route. Afterward, the rats were anesthetized using a standard protocol of ketamine-xylazine combination, and blood samples were collected. Hematological parameters including white blood cell (WBC), red blood cell (RBC), hematocrit (HCT), and platelet (PLT) counts were measured using an automated hematology analyzer. Plus, lactate dehydrogenase (LDH) was also determined in the serum using an autoanalyzer.

Result: The results demonstrated that cytarabine treatment induced significant decreases in WBC, RBC, HCT, and PLT counts, and increased LDH levels in rats in comparison to the control group. However, rats that received orally administered honey with different TPC levels (low, moderate, and high) demonstrated a significant increase in WBC and PLT counts, as well as a decrease in LDH levels compared to rats treated only with cytarabine. No significant changes were observed in HCT levels. Consequently, high TPC honey was more effective than low and moderate TPC honey in LDH levels, WBC, and PLT counts in cytarabine-treated groups. Moreover, honey containing high TPC stimulated a significant increase in RBC counts that was not observed in honey with low or moderate TPC.

Conclusion: It sounds like the classification of honey samples based on the TPC marker could lead to remarkable protective properties against cytarabine-induced hematological alterations; in this way, high TPC honey was more successful than the others. Consequently, honey containing high TPC could be considered a natural prophylactic dietary supplement to protect against cytarabine-induced changes during cancer treatment.

G-1544

Challenges and concerns of different members of society during the Covid-19 pandemic

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Introduction: Covid-19 was first discovered in December 2019 in Hubei Province, China. One of the characteristics of this disease is that it is unknown and multi-symptomatic, and the speed of its spread is very high, so within 95 days from the diagnosis of the first patient, it became a global epidemic. For this reason, Covid-19 has become a public health emergency and has caused international concerns. Therefore, this study was conducted with the aim of investigating the challenges and problems of different members of society during the COVID-19 pandemic.

Method & material: This qualitative research was conducted with the discourse analysis approach in 2019-2020. The research samples in this study were 360 recorded messages out of more than 10,000 messages by people who called the urgent call number 3113 of Isfahan University of Medical Sciences during the Covid-19 pandemic and expressed their concerns. sampling was done randomly and purposefully and continued until data saturation was reached. The duration of the analysed messages was 10 to 25 minutes. Granheim and Lundman's approach was used for data analysis. The process of coding and analysing the research data was done simultaneously. Data analysis was done using MaxQDA 10 software.

Result: After analyzing the interviews, the codes related to the reason for the contact in 7 categories (in search of preventive solutions, in pursuit of knowledge about the symptoms of Corona, Incubation period and how it is transmitted, worrying about the infection of oneself and others and trying to fix it, awareness of corona treatments, search for service providers, complaints, and requests from the treatment system, pregnant and lactating men) and 28 subclasses were presented.

Conclusion: The results of this study revealed various concerns regarding corona disease and the reasons for the health-seeking behaviour of different members of the society in the event of a pandemic, which can be the foundation for suitable educational and counselling plans based on the needs of the community during the subsequent pandemics.

G-1545

Advisory performance of health service providers to the educational needs of the community in the covid 19 pandemic

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Introduction: Covid-19 was first discovered in December 2019 in Hubei Province, China. One of the characteristics of this disease is that it is unknown and multi-symptomatic, and the speed of its spread is very high, so that within 95 days from the diagnosis of the first patient, it became a global epidemic. For this reason, Covid-19 has become a public health emergency and has caused international concerns. Therefore, this study was conducted with the aim of investigating the advisory performance of health service providers to the educational needs of the community during the Covid-19 pandemic.

Method & material: This qualitative research was conducted with the discourse analysis approach in 2019-2020. The research samples in this study were 360 recorded messages out of more than 10,000 messages, by people who called the emergency number 3113 of Isfahan University of Medical Sciences during the Covid-19 pandemic And they received advice from 35 health service providers (doctors, nurses, midwives). Sampling was done in a random and purposeful way and continued until data saturation was reached. The duration of the analyzed messages was 10 to 25 minutes. Granheim and Lundman approach was used for data analysis. The process of coding and analyzing the research data was done simultaneously. Data analysis was done using MaxQDA 10 software.

Result: After analyzing the interviews, the codes related to the performance of the counsellors in responding in 6 levels (providing medical advice and diagnostic tests, giving follow-up measures and recommending them, examining the symptoms of Corona, de-stressing and reassuring, Informative and preventive recommendations, analysis of therapeutic and diagnostic measures were carried out) and 18 subclasses were presented.

Conclusion: The results of this study revealed the need for different members of society to access health service providers to receive advice on de-stressing and reassurance and provide information on preventive measures, identification of disease symptoms, and therapeutic and diagnostic measures during pandemics. The results of this study can help the planners of the health system in preparing appropriate and responsive educational content to the educational needs of different members of society during pandemics.

G-1547

Exploring the Therapeutic Effects of Duloxetine and Nortriptyline on Patients with Irritable Bowel Syndrome

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Introduction: Irritable bowel syndrome is one of the most common disorders of the gastrointestinal tract, which can be controlled with Nortriptyline and Duloxetine. The aim of this study was to compare the effect of Duloxetine and Nortriptyline on quality of life and pain intensity in patients with irritable bowel syndrome.

Method & material: This clinical trial was performed on 30 patients with irritable bowel syndrome who were older than 16 and fill in the ROME criteria , referred to a subspecialty gastroenterology office in Mashhad from 2016 to 2017. Available sampling method was used for sampling.Assignment of patients to the two intervention groups was by random table method. Patient information including weight and quality of life questionnaires in irritable bowel syndrome 34 questions (IBS-QOL-34) and McGill pain assessed 22 questions (SF-MPQ-2) before, one month and two months after the start of the study completed.The researchers and participants were all blinded to the group allocation.The data were then analyzed by SPSS 26 software. Appropriate statistical tests such as Chi-squared test and Fisher's exact test were used for analysis.

Result: Out of 30 patients, 16 were in the Neurotriptyline group and 14 in the Duloxetine group and the mean age of the two groups was 32.06 ± 8.96 and 36.64 ±11.62 years, respectively. The results of analytical tests showed that there was no significant difference between reducing pain intensity and improving quality of life in the two groups (P 0.05), but Nortriptyline in the first month of use in quality of life is significantly different from Duloxetine (P 0.05).

Conclusion: Duloxetine and Nortriptyline both improve the quality of life and reduce the severity of pain in patients with irritable bowel syndrome, but in improving the quality of life, Nortriptyline is a more effective drug than Duloxetine.

G-1549

The effect of magnesium supplementation on body composition: An updated systematic review and meta-analysis of clinical trials

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Introduction: There are numerous trials reported the effect of magnesium on obesity measurements; while no summarized dose-response meta-analysis is available to address the effects of dose and duration of magnesium supplementation on obesity measurements. We aimed to summarize the results of studies evaluating the effects of magnesium supplementation on obesity measurements such as body weight, waist circumference (WC), and BMI and body fat percentage in a systematic review and dose-response meta-analysis.

Method & material: In this systematic review and meta-analysis, we searched PubMed, Cochrane Library, Scopus, Web of Science and Google Scholar from databases inception up to April 2023 for relevant randomized controlled trials. Quality of evidence was evaluated using the Cochrane Collaboration Tool. All the outcomes of this meta-analysis were pooled using the random effect model. Analysis of dose–response for magnesium dosage was carried out using a fractional polynomial model. The overall effect was presented as the weighted mean difference (WMD) at 95 % confidence interval (CI) in a random-effects meta-analysis model. Publication bias was also assessed using Egger's and Begg's statistics.

Result: Totally, 29 studies comprising 2,098 participants were included for the meta-analysis. There were no significant changes in anthropometric indices after magnesium supplementation in the overall analysis. However, subgroup analysis revealed that magnesium supplementation decreases WC in subjects with BMI 30 kg/m2 (obese) (13 trials, n 997 participants; weighted mean difference = –3.09 cm, 95 % CI –4.12, –0.09, P = 0.032; I2 = 0 %). Dose–response analysis revealed a non-significant non-linear effect of supplementation dosage on anthropometric indices.

Conclusion: According to our finding, magnesium treatment significantly reduced WC only in obese subjects. However, further studies evaluating the other obesity measurements especially central obesity will be helpful to infer a more reliable result.

G-1550

Future research in students Osce test: the role of artificial intelligence

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Introduction: In medical education, the osce test is used as an acceptable method of measuring clinical competence in the world, which, of course, is associated with many challenges, such as creating a lot of stress, spending a lot of money and time, and using a large number of human resources. Artificial intelligence in medicine is the use of machine learning models to search medical data to help improve health outcomes. Thanks to recent advances in computer science and informatics, artificial intelligence has quickly become an integral part of modern health care, and researchers' attention has been drawn to the use of this method in the osce test. In this review, the role of artificial intelligence in Reduce challenges and improve the process of this test.

Method & material: In this review study, keywords osce, artificial intelligence and future research were searched in Google Scholar, Pub Med, Sid databases from 2019 to 2023 and 20 articles were found, of which 8 articles were related to the topic , entered the study.

Result: Google, zoom, Microsoft and ... platforms, hardware, software and remote health systems based on examples of artificial intelligence that are used in medical settings, clinical decision support and imaging analysis. Artificial intelligence is a system with a function similar to the human brain, which can respond to issues by understanding complex conditions and simulating thought and reasoning processes with problem solving methods. Since the osce test emphasizes problem-solving skills, critical thinking and decision-making; Artificial intelligence can play a significant role in advancing the goals of this test. This method can add high speed and high accuracy to the work and with a non-prejudiced view, provide a safe platform in education and evaluation for students so that they can complete their educational process without stress and fear of being judged and prejudiced by others.

Conclusion: Artificial intelligence has been a huge development in medical science and now it has brought good results in the world of education. Considering the benefits of this method in the discussion of osce tests, it is recommended that more studies be conducted in this field and training programs be developed to familiarize teachers with this method.

G-1551

The effect of topical cream of asafoetida aqueous extract on cutaneous leishmaniosis wound in BALB/c mice compared to Glucantim

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Introduction: Leishmaniasis is one of ten important protozoan diseases endemic in tropical and subtropical regions. In Iran incidence of cutaneous leishmaniasis is 31 in 100,000 people and 99.5% of cases occurred in rural areas. Glucantime as the first-line therapy for CL has toxic side effects and drug resistance. Slowness of wound healing, disease recurrence, painful intra-wound injection of dosage form and high cost are other challenges Ferula assa-foetida L. from eastern regions of Iran has oleo gum resin named asafetida taken from root of plant. In the sources of Persian Medicine, asafetida used topically healing wounds, removing excess flesh and strong in penetrating wounds. Considering previous studies demonstrated efficacy of asafoetida in stopping growth and lethality of Leishmania major in-vitro, this study aimed to evaluate the effect of asafoetida on cutaneous leishmaniasis wounds in BALB/c mice.

Method & material: Aqueous extract from asafoetida was achieved and two concentrations of 20% and 40% in eucerin base were prepared. BALB/c mice were divided into two categories by the random division of the subject using the random table and coding. The first category belonged to wounds ≤5 mm after 45 days and the second category was associated with wounds 5 mm after 53 days. Each category included 4 groups of asafoetida extract cream (AEC) 40% (BID/day), eucerin, glucantime (20 mg/kg, s.c.) and control, consisting of 5 mice. In second category, AEC 20% was used instead.

Result: In wounds 5 mm, a significant reduction in size of wounds was observed in glucantime group in 3th to 5th week (P0.05). There was a significant decrease in parasite load in wounds of all mice in AEC 40% group and glucantime group compared to other groups (P0.001). In AEC 40% group, no amastigotes were observed in spleen of any mice compared to glucantime group (40% loss of amastigotes) (P=0.002).In wounds ≤ 5 mm, no reduction in size of wounds was observed in AEC 20% group. However, a higher decrease in parasite load was observed in wounds of all mice in this group and glucantime group (P0.001). The spleen of none of the mice showed any amastigotes in AEC 20% group. In glucantime group, no amastigotes were observed in 80% of livers and in 100% of spleens. Difference between these two groups with other groups was significant (P 0.002).

Conclusion: It was concluded from our study that the AEC showed significant antileishmanial activity. Asafetida may be recommended as an efficient topical treatment for improving the L. major induced ulcers beside standard treatment.

G-1552

Investigation of screening methods and levels of prevention in colorectal cancer in the elderly; benefits and challenges

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Introduction: Colorectal cancer is known as a silent malignancy. In this type of cancer, age and environmental factors play a more important role than genetic and hereditary factors. With increasing age, the prevalence of this cancer goes up. One of the important things that plays an important role in the prevention of colorectal cancer is screening. The aim of this study is to review screening methods and levels of prevention in colorectal cancers; Its benefits and challenges.

Method & material: In this review study, words related to colorectal cancer, elderly, screening were searched in reliable scientific databases (Google Scholar, Sid, Pubmed) in the period from 2018 to 2023 and 11 articles were found due to the lack of access to the full text and the relevance of the content, 8 articles were selected and analyzed.

Result: Screening and lifestyle as levels of prevention play an important role in reducing colorectal cancer mortality. Colorectal cancer is one of the main causes of death in the elderly. There are various screening methods. These methods are divided into two groups; The first group: methods that check cancer and have a moderate effect on prevention, such as the guaiac test, fecal occult blood test, and immunochemical test. The second group: tests that check the structure; Such as: CT scan of the colon and colonoscopy. Each of these methods brings challenges for people, especially the elderly who need social support. CT scan of the colon causes the person to be exposed to a lot of radiation. In addition, the nationwide screening policy needs a multidisciplinary approach including: educational programs, significant financial support and logistical resources for successful implementation, and there is a large-scale shortage of endoscopists, pathologists and the consumption

Conclusion: Screening and lifestyle as levels of prevention play an important role in reducing colorectal cancer mortality. Colorectal cancer is one of the main causes of death in the elderly. There are various screening methods. These methods are divided into two groups; The first group: methods that check cancer and have a moderate effect on prevention, such as the guaiac test, fecal occult blood test, and immunochemical test. The second group: tests that check the structure; Such as: CT scan of the colon and colonoscopy. Each of these methods brings challenges for people, especially the elderly who need social support.

G-1553

The effects of pioglitazone and rosiglitazone on liver function in hypothyroid rats

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Introduction: This study aimed to investigate the antioxidant effect of rosiglitazone (ROG) and pioglitazone (POG) on oxidative damage and dysfunction of hepatic tissue induced by induced hypothyroidism in juvenile male rats.

Method & material: The rats were classified into six groups: (1) Control; (2) Hypothyroid, (3) Hypothyroid-POG 10, (4) Hypothyroid-POG 20, (5) Hypothyroid-ROG 2, and (6) Hypothyroid-ROG 4. To induction hypothyroidism in rats, propylthiouracil (PTU) (0.05%w/v) was added to drinking water. In groups 2- 6, besides PTU, the rats were also intraperitoneal (IP) administrated with 10 or 20 mg/ kg POG or 2 or 4 mg/ kg ROG for six weeks. Finally, after deep anesthesia, the blood was collected to measure the serum biochemical markers. The animals were killed, then hepatic tissue was separated for biochemical oxidative stress markers.

Result: Administration of PTU significantly reduced thyroxin levels in the serum. Furthermore, Induction of hypothyroidism by PTU in juvenile rats was associated with a reduction in total thiol levels and activity of superoxide dismutase (SOD) and catalase (CAT) enzymes in the liver and an increase of malondialdehyde (MDA). The serum levels of hepatic enzymes including aspartate aminotransferase (AST), alanine aminotransferase (ALT), and alkaline phosphatase (Alk-P) in the hypothyroid rats were significantly enhanced in comparison with the healthy rats. Additionally, our results revealed that administration of POG or ROG for six weeks to hypothyroid rats resulted in an improvement in liver dysfunction through reducing oxidative damage in hepatic tissue (increase in CAT, SOD, or total thiols and decrease in MDA levels). Moreover, improvement in liver dysfunction in hypothyroid rats was reflected in the reduced serum levels of hepatic enzymes including AST, ALT, and ALK-P in POG or ROG-treated hypothyroid rats in comparison

Conclusion: Based on the findings of the present study, it can be concluded that the IP administration of POG and ROG for six weeks improves liver dysfunction induced by hypothyroidism in juvenile rats by reducing oxidative damage.

G-1554

The effect of apple consumption on wound healing in humans

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Introduction: Wound healing is a complex process in which the skin repairs itself after injury. Some natural substances have shown positive effects on the process of healing and repairing wounds and reducing inflammations. According to studies, the consumption of apple has shown a significant relationship with the healing process of wounds, although the findings in this field seem contradictory. Therefore, the aim of this study is to review the available evidence on the effect of apple consumption on the healing of wounds and injuries in humans.

Method & material: A systematic search was conducted in PubMed, Google scholar, Scopus, Web of science databases until 2023. In this study, all cross-sectional, prospective, and clinical studies that investigated the effect of apple consumption on wound healing in humans were evaluated.

Result: Based on the search, a total of 31 articles were reviewed, and finally, 3 studies had the factors to be included in the present study. Studies have shown that apple tree consumption significantly protects cells against bacterial toxicity. Especially when it is consumed as a supplement with polyphenols, which become useful therapeutic supplements for the treatment and healing of wounds. The pectin present in the tree apple causes a better tolerance of the diet, the absence of side effects, inhibits inflammation and accelerates the epithelization of the wound caused by burns. In addition, the best results were observed when the consumption of pectin started on the first day after the burn injury. However, some studies did not show significant results of the effect of this substance on wound healing.

Conclusion: The findings of the present study showed that there is a direct and significant relationship between apple consumption and the wound healing process. However, it seems that in order to confirm this protective and restorative effect, it is necessary to design more clinical trial studies in this field.

G-1555

Reporting a new pathogenic variant at the ECEL1 gene in an affected case with Arthrogryposis in Ardabil province

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Introduction: Distal Arthrogryposis Type 5D is a rare form of the distal arthrogryposis syndrome that affects the hands, feet, ankle joints, shoulders and/or neck from birth. It is characterized by camptodactyly of the fingers and limited extension of the knee and hip joints. Asymmetric ptosis and other ocular manifestations (such as strabismus) are also common. In this research, a new pathogenic variant in the ECEL1 gene is reported in an individual affected with arthrogryposis.

Method & material: A 1-year-old child with the symptoms of onion-bulb nose, micro/retrognathia, short neck, knife-like feet, and scoliosis resulting to the diagnosis of arthrogryposis has been referred for genetic analysis. The pathogenic variants in the 60 genes responsible for the arthrogryposis have been assayed by the whole exome sequencing (WES) method.

Result: Among the single-nucleotide variants, a non-reported one at the ECEL1 gene has been selected to be the cause of the disorder. Then, it was confirmed by Sanger-based PCR-Sequencing.

Conclusion: ECEL1 (Endothelin-converting enzyme-like 1) is a gene that produces a protein. Diseases associated with ECEL1 include Arthrogryposis, Distal, Type 5D, and Distal Arthrogryposis. The variant ECEL1(NM_004826):c.1253GA (p.Arg418His) is classified as likely pathogenic by VARSOME (based on the American college of medical genetics and genomics guidelines; with the criteria: PM5, PP3, PM1, and PM2). According to its very low frequency (GnomAD frequency=0, Iranome frequency= 0), ACMG guidelines and adapting with our proband's clinical symptoms, we classified this variant as pathogenic.

G-1556

The effect of meditation on the frequency and duration of epileptic attacks

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Introduction: Epilepsy is a chronic and common disease that severely influences the quality of life and psychological and social functions of the affected person. Complementary treatments, along with drug therapy, have been suggested as low-risk and low-cost methods to better control this disease, one of which is meditation.
Meditation, as a conscious mind method, helps to relax and reduce people's stress. So, it seems to be useful for controlling epilepsy. But, the results of some studies show contradictions in this issue. As a result, meditation is mentioned as a double-edged sword for epilepsy. Therefore, the purpose of this study is to review the studies conducted on the effect of meditation on the frequency and duration of epileptic attacks.
Method & material: This article is in the form of a review by searching the data resources of reliable and available databases including pubmed, science direct, civilica, SID, and google scholar search engine. We used pertinent keywords, including meditation, epilepsy, seizure, and their combinations without time limit. A total of 100 articles were found, from which irrelevant articles were removed, and finally, 21 articles were examined.
Result: Studies show that meditation is significantly effective in reducing the frequency and duration of seizures in patients with epilepsy. However, the study of the electroencephalogram of some patients and some case reports bring up some contradictions. What worries researchers is that meditation and seizures have similar effects on people's brain waves. These effects include increasing the frequency of alpha, theta, and gamma, and also increasing the neural synchrony . Also, meditation can bring some seizure-like signs and experiences such as apnea, myoclonic jerking, and mental feeling of present-moment awareness. However, these studies have not definitively shown that meditation leads to seizure provocations, and this relationship appears to be merely a medical hypothesis that has a coincidental association. Additionally, nor studies were found to show that meditation led to an overall increase in seizure frequency, and only case report studies documented some reports.
Conclusion: According to the studies conducted, it seems that meditation can lead to a decrease in the frequency and duration of epileptic attacks, and no study was found that showed an increase in the frequency of epilepsy. But despite some case report studies, it is suggested to conduct more detailed studies in this field to confirm or reject the existing theories. Also, persons with epilepsy who use meditation and mindfulness methods should be under more supervision.

G-1557

The effects of three types of bariatric surgery on cardiometabolic indices in patients with hyperglycemia

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Introduction: The prevalence of cardiovascular diseases is higher in patients with hyperglycemia and the presence of cardiovascular consequences of this disease increases mortality in these patients. The present study was conducted to compare the effect of obesity-related surgeries on cardiometabolic indicators in patients with hyperglycemia.

Method & material: In this retrospective cohort study, 154 patients with hyperglycemia with fasting blood sugar above 110 mg/dL who underwent three bariatric surgeries including sleeve gastrectomy (SG) , Roux-en-Y Gastric Bypass (RYGB) and One-Anastomosis Gastric Bypass (OAGB) were investigated. Lipid profile including cholesterol, triglyceride, LDL and HDL were measured before surgery and six months after surgery. Cardiometabolic indices including plasma atherogenic index (AIP), lipoprotein composite index (LCI) and atherogenic coefficient (AC) were calculated through the formula.

Result: SG surgery caused a significant decrease in AIP (0.17±0.18), LCI (11.69±18.73) and AC (0.70±1.28) indices (p0.001).). RYGB surgery caused a significant decrease in AIP (p 0.001, 0.14 ± 0.15) and LCI (p = 0.01, 7.32 ± 16.24) indices.OAGB surgery caused a significant decrease in the level of AIP (p 0.001, 0.16 ± 0.19), LCI (p 0.001, 8.21 ± 12.80) and AC (0.02) p 0.45±1.34). The comparison between the three groups showed that there was no significant difference in the reduction of AIP (p=0.79), LCI (p=0.35) and AC (p=0.36) indices during six months.

Conclusion: The findings of the present study showed that bariatric surgery can improve cardiometabolic indicators in hyperglycemic patients. On the other hand, there is no significant difference between obesity surgeries in this field

G-1558

The role of presenilin gene in neuronal differentiation: A systematic review

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Introduction: Presenilin is a transmembrane protein that plays a crucial role in the processing of amyloid precursor protein (APP) and Notch receptor signaling. Also, it has a role in apoptosis and synaptic function. It's a protein that is encoded by two genes, PSEN1 and PSEN2, which are associated with early-onset Alzheimer's disease. Recent studies have shown that presenilin also plays a critical role in neuronal differentiation. In this systematic review, we will examine the literature to determine the role of presenilin in neuronal differentiation.

Method & material: All the articles related to the subject were extracted using the three search engines PubMed, Web of Science, and Scopus with a specific search strategy from 1996 to 2022. Finally, by removing duplicate articles, systematic reviews, and less related articles, 40 articles were analyzed in terms of information such as the tissue examined, antibodies used, differentiation method, etc.

Result: Presenilin is crucial for neural stem cell differentiation into neurons but not necessary for adult hippocampal neurogenesis. It also aids in specific neuron types' differentiation, particularly by facilitating EGFR expression in neurons, not glial cells- Mutant presenilin 1 hamper self-renewal and differentiation in adult subventricular zone neuronal progenitors through notch signaling. Presenilin influences neuronal differentiation through various pathways, including Wnt signaling. Inhibiting CBP/beta-catenin interaction can rescue neuronal differentiation defects caused by presenilin-1 mutations. In Alzheimer's disease, altered presenilin-1 expression suggests a potential role in its pathogenesis, as demonstrated by impaired enrichment-induced adult hippocampal neurogenesis due to a familial Alzheimer's disease-linked presenilin-1 variant.

Conclusion: Presenilin plays a crucial role in the differentiation of neurons. It is required for the generation of neurons from neural stem cells and also plays a role in the differentiation of specific types of neurons. Moreover, presenilin regulates the differentiation of neurons through various signaling pathways. These findings suggest that presenilin could be a potential target for therapies aimed at promoting neuronal differentiation in various neurodegenerative diseases, including Alzheimer's disease.

G-1559

Investigating the effect of curcumin on the treatment of acne in adults

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Introduction: Acne (Acne vulgaris) is a type of skin problem that most people, especially teenagers, experience. This condition occurs when the hair follicles are filled with fat and dead skin cells and there is no way to remove the accumulated fat. Various factors such as stress, genetics and lifestyle can be involved in the occurrence of this condition. Therefore, effective treatment is often the use of drugs along with lifestyle and diet modification. Curcumin is a natural yellow polyphenolic pigment that is obtained from the spice turmeric and has been traditionally used for the treatment of acne and acne in the past. Therefore, the aim of this study is to review the evidence on the effectiveness of curcumin In the treatment of acne in adults.

Method & material: Systematic search was done in PubMed, Google scholar, Scopus, Web of science databases until 2023. In this study, all clinical trial studies that investigated the effect of using curcumin for the treatment of acne in humans were included in the evaluation.

Result: Based on the search, finally 10 studies had the inclusion factors in the present study. According to the results of clinical trials, turmeric has shown effectiveness against many skin diseases including acne.Curcumin's anti-inflammatory and antimicrobial properties make it a potential option for acne treatment. Studies have shown that carriers full of curcumin can significantly accumulate in the skin and prevent the growth of Propionibacterium acnes. Also, the results of the research showed that the use of microemulsions enriched with curcumin can be very effective as an alternative treatment for acne vulgaris. In addition, the antibacterial activity of lauric acid lipid carriers containing curcumin against propioni species of bacteria has been proven in studies. On the other hand, treatment with photolytic curcumin can support non-antibiotic treatment to eradicate Propionibacterium acnes in the skin.

Conclusion: The findings of the present study showed that there is a direct and significant relationship between the use of curcumin and the improvement of acne in humans. However, it seems that in order to confirm this therapeutic effect, the effective dose and the effective duration of the intervention, there is a need to design more clinical experimental in this studies.

G-1560

Evaluation of anti cancer effect of a tandem diabody against PD-1 and CTLA-4 on breast cancer cells

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Introduction: Background: Many studies showed that co-targeting of immune checkpoints can improve the efficacy of cancer treatment. Different types of bispecific antibodies have been produced for cancer treatmen. One of the common types of bispecific antibodies is single chain antibodies such as diabody. Here, we aimed to evaluate the anticancer effect of a bispecific diabody against two immune checkpoints, PD-1 and CTLA-4

Method & material: Methods: Cytotoxicity of anti-PD-1/anti-CTLA-4 diabody against MCF-7 and MDA-MB-231 cells was evaluated using MTT method. Apoptotic effect of the diabody was detected using Annexin/propidium iodide method. The apoptosis induction was also checked by western blotting. The effect of protein on cell cycle was examined using flow cytometry.

Result: Results: Cytotoxicity of the diabody against MDA-MB-231 cells was more than MCF-7. Cell survival at 400 nM concentration of the diabody was 42% for MDA-MB-231 and 69% for MCF-7. The result of the statistical test shows that the lethal effect of diabody and doxorubicin in these concentration, 25-50-100-200 nM and 21.8, 43.7, 81.5, 175 nM in MCF-7 with MDA-MB-231 with P-value less than 0.05 is significant .The diabody at concentration of 400 nM led to 31.7% apoptosis according to Annexin/propidium iodide method. The western blot analysis showed that the diabody at concentration of 400nM increased the ratio of Bax/Bcl-2 form 0.56 to 0.64. Cell cycle evaluation showed that the diabody led to cell cycle interruption, leading to cell cycle arrest in G2 and decrease S.

Conclusion: Conclusion: Our results indicate that the toxicity of this diabody was more in MDA-MB-231 (PD-L-1 overexpressing cell line) then MCF-7 (PD-L-1 low expressing cell line). Immune checkpoint inhibitors can improve breast cancer treatment particularly PD-L-1 overexpressing type. This diabody could be a potential anticancer agent and should be evaluated for more invitro and invivo experiments Summary of the overall findings and the importance of the study

G-1561

Body mass index is associated with an increased risk of cataract in adults: an updated meta-analysis

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Introduction: There are inconsistent findings on the association between body mass index (BMI), as an indicator of obesity, and cataract (ARC). Two 2014 meta-analyses summarized available findings in this regard, however, they had several methodological defects that distort their findings. Also, several studies have been published since the release of those meta-analyses. Moreover, the linear and non-linear dose-response associations of BMI with ARC and its subtypes were not assessed in the previous meta-analyses. Therefore, this study aimed to summarize findings on the association between BMI and cataract in the context of a dose-response meta-analysis on cohort studies.

Method & material: A systematic search in the online databases of PubMed, Scopus, ISI Web of Science, and Google Scholar was done until May 2023 to identify eligible cohorts. Fixed- and random-effects models were used to combine effect sizes. Also, Newcastle Ottawa scale was used for the quality assessment.

Result: In total, we included 16 cohort studies, in which 1,607,125 participants, 103,897 cases of ARC, 4870 cases of nuclear cataract, 1611 cases of cortical cataract, and 1603 cases of posterior subcapsular cataracts (PSC) were assessed. All studies had a quality score of 6 or more, indicating the high quality of the included studies. By comparing the highest and lowest categories of BMI, we found that higher BMI was associated with an increased risk of ARC (RR: 1.18, 95% CI: 1.09-1.28) and PSC (RR: 1.44, 95% CI: 1.08-1.90). In the dose-response analysis, each 5 kg/m2 increase in BMI was associated with a 6% and 27% increased risk of ARC (RR: 1.06, 95% CI: 1.01-1.12) and PSC (RR: 1.27, 95% CI: 1.14-1.41), respectively. In addition, we found a positive association for cortical cataract so that higher BMI was associated with a 20% increased risk of cortical cancer (RR: 1.20, 95% CI: 1.02-1.42).

Conclusion: In total, we found that BMI is associated with an increased risk of cataract and some of its subtypes including PSC and cortical cataract. However, this association was not seen for nuclear cataract.

G-1562

Reporting a new potentially harmful variant in the DNAH5 gene in patients with Kartagener syndrome in Ardabil province: Case report

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Introduction: Kartagener's syndrome is a type of dyskinesia with various symptoms. This condition is characterized by a clinical triad of chronic sinusitis, bronchiectasis, and situs inversus. This condition is an autosomal recessive disorder that is mainly caused by mutations in the DNAH5 gene. DNAH5 is a gene that contains the instructions for producing a protein known as dynein axonemal heavy chain 5. In this study we aimed to report a novel pathogenic variant at the DNAH5 gene in an Iranian girl with Kartagener's syndrome.

Method & material: The proband was analyzed by whole exome sequencing (WES). The extracted DNA (by a filter-based methodology) from the peripheral blood was analyzed by whole exome sequencing (WES). Then, sequencing libraries were generated using Agilent SureSelect Human All Exon V7 kit (Agilent Technologies, CA, USA), followed by feeding into Novaseq 6000 Illumina Sequencer. Running on the G9 generation of HP server using Unix based operating system was applied to data quality control, analysis, and interpretation. The average read depth was 100X, and more than 98% of the targeted genomic sequence had a depth of 20X or greater. The result have been validated and confirmed by Sanger-based PCR-Sequencing. Forty nine genes were selected to be responsible for primary ciliary dyskinesia and Kartagener's Syndrome/heterotoxy with chronic respiratory infections

Result: A non-reported variant at the DNAH5 gene has been detected. Among the variants detected among the 49 genes responsible for PCD, homozygosity for the variant DNAH5(NM_001369.3):c.1190_1193del (p.Phe397Ter) has been considered.

Conclusion: Genetic testing is becoming more common and feasible in the diagnosis of KS due to recent advances in next-generation sequencing. DNAH5 is reportedly the most frequently mutated gene in patients with PCD (1-3). Based on the ACMG guidelines, the variant DNAH5(NM_001369.3):c.1190_1193del (p.Phe 397Ter) is classified as likely pathogenic (criteria: PVS1, PM2). Null variant (nonsense) in gene DNAH5, predicted to cause nonsense-mediated decay. Loss-of-function (LOF) is a known mechanism of Kartagener's syndrome (DNAH5 gene has 709 reported pathogenic LOF variants). The exon affects 1 functional domain: UniProt protein DYH5_HUMAN region of interest 'Stem'. The exon contains 3 pathogenic variants. The truncated region contains 712 pathogenic variants. It's frequency in database including Iranome is 0. According to its very low frequency, ACMG guidelines and adapting with our proband's clinical symptoms, we classified this variant as pathogenic.

G-1564

Genetically modified foods and cancer: A systematic review

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Introduction: Genetically modified (GM) organisms are plant or animal organisms, the genotype of which has been changed in a way that is not natural for nature, using methods of genetic engineering to give the body new properties: resistance to herbicides, pests, diseases and salinity, to the action of high and low temperatures, increase calories; to solve the problems of cleaning the environment from organic pollution and heavy metals; to ensure the synthesis of certain compounds in the plant organism and the use of plants for the production of these compounds. The present review aimed to clarify the association between GM foods and cancer.

Method & material: A search was conducted on the Persian (SID, Magiran) and English (PubMed, Medline, Web of Science, CINAHL, Scopus) databases from 2010 to June 01, 2023. Search terms were: "genetically modified foods and cancer", "genetically modified foods and Neoplasms", "GM foods and Neoplasms", "transgenic food and Neoplasms". 17 articles were found through the investigation of such databases. The screening process of articles was conducted by three-reviewer respectively. After title, abstract, or full-text reading and applying exclusion criteria, we reviewed 8 studies on the consumption of GMO foods and cancer. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Result: Findings show that they might include some carcinogenic substances, but at the same time, they could prevent cancer. Higher levels of antioxidants, vitamins, iron, folic acid, phytosterol, beta-carotene, essential fatty acids, and some amino acids in GM products help prevent cancer and some other diseases. Bt maize contains lower concentrations of mycotoxins, fumonisins, and thricotecens which are toxic and carcinogenic to humans and animals. Some literature mentions that GM foods contain some toxic and carcinogenic substances, but we must consider the amount of these substances. Also, lots of our daily foods contain carcinogenic materials; for example, apple contains 22 ppm of formaldehyde but we can't mention apple as harmful fruit because the amount of formaldehyde in apple is too low. One notable point of GM products was milk from GM cows. It could increase the IGF-1 concentration in serum which is positively correlated with breast, lung, and colon cancer.

Conclusion: In general, genetically modified products are not as harmful as the advertisements show. However, before they enter the market, they must undergo rigorous evaluations, in which case they are both economically beneficial and healthy.

G-1566

Comparing the effect of aromatherapy with lavender and rose essential oil on the prevention of headache caused by nitroglycerin infusion

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Introduction: Considering that nitrates with the side effect of headache are one of the most common drugs used to control the symptoms of patients with persistent and chronic angina and also the lack of consistent studies in this field, this study aims to determine the effect of aromatherapy with lavender and rose essence on the prevention of Occurrence of headache in patients hospitalized in cardiac special care department was done.

Method & material: This study is a randomized clinical trial. which was conducted on 43 patients hospitalized in the special cardiac care department of Allameh Bahloul Gonabadi Hospital between October and December 2018. After applying the entry criteria, the participants were first selected by the available method and randomly assigned to 3 groups (lavender, rose, and control). Demographic information form, headache control checklist and visual pain measurement scale were used in this study. In the intervention groups (rose and lavender), as soon as the nitroglycerin infusion started, cotton soaked with 3 drops of the relevant plant essence was attached to the patient's collar with a pin for half an hour, and the patients of both groups were asked to breathe normally) and There was no intervention in the control group. Using a visual pain scale, the occurrence of headache in the patient was checked and recorded at 15, 30, 60 and 90 minutes

Result: The results of this research, which was conducted on heart patients, showed that the frequency of headache after nitroglycerin infusion was 48.9% in the intervention group and 58.8% in the control group. This difference was statistically significant (p=0.016). Also, there was no statistically significant relationship between the incidence of headache during 15, 30, 60 and 90 minutes after the intervention in the three groups. Pairwise comparison of the groups showed that there was a significant difference between the control group and rose and there was no statistically significant difference between the control group with lavender and the rose and lavender group (p0.05).

Conclusion: In general, the results of the present study showed that the use of aromatherapy with rose and lavender essential oils can probably reduce the incidence of headache caused by nitroglycerin infusion.

G-1567

Epidemiology of burns in pediatrics under 15 year's age admitted to Kurdistan referral burn center (Tohid Hospital) per year 2017-2019

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Introduction: Burn is a type of skin damage caused by heat, chemicals, friction, or radiation and is considered as the beginning of a catastrophe for society, family, and individuals. Burn injuries are one of the leading causes of death in developing countries. It is found and is developing and causes significant financial and human losses to patients and their families in different communities, and typically 5% of hospital admissions are due to burn injuries due to the high importance of burns in Children and the lack of this study in Kurdistan province, the study of this study is very important to determine appropriate strategies to prevent the occurrence of burns and also the necessary measures after burns

Method & material: We conducted a descriptive cross-sectional study that included all children under the age of 15 who were admitted with burns to Tohid Hospital in Sanandaj between 2017 and 2019. We collected data on demographic characteristics such as age, sex, and place of residence, as well as information on the cause, percentage, degree, and location of burns. We also assessed the outcome of hospitalization, duration of hospital stay, month of occurrence, and associated costs incurred by patients. Findings were presented in the form of graphs and tables corresponding to the results. The obtained data were entered into SPSS software and analyzed.

Result: Burns are more common in boys than girls. The average age is 4.71ur years. The highest percentage of burns is in the age group of 2 years. The main cause of burns in children is boiling water. The average burn rate was 15/2%. Most cases are hospitalized in Sanandaj. The urban population accounts for a higher percentage of burns. Most burns were grade 2. The average length of hospital stay was 4.65 days. The highest percentage of burns was in July. The average cost of treatment was 1277731.57. The highest percentage of burns was at 8 p.m. 54.5% of cases were referred from another center.

Conclusion: The analysis of the collected data showed that burns are a multifactorial phenomenon. Most cases of burns are in the hours close to dinner, which is due to not paying attention to the child during these hours. The percentage and degree of burns is a very effective factor in the outcome of burns. Boiling water is the most common cause of burns. According to the results of this study, intervention to improve the quality of medical care in children with burns seems necessary. Also, note that most cases of burns occur during the hours when parents do not take adequate care of the child, the need to pay attention to Security measures as well as awareness of how to prevent accidents are becoming increasingly important.

G-1569

Hepatoprotective effect of N–acetylcysteine against deltamethrin–induced liver damage in mice

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Introduction: Exposure to insecticides is of concern to public health officials worldwide. Deltamethrin is a synthetic pyrethroid insecticide which widely used in agriculture and veterinary medicine. The study was designed to evaluate the effects of a single intraperitoneal (i.p.) injection of deltamethrin on biochemical and oxidative stress parameters. Furthermore, the protective effects of N-Acetylcysteine (NAC) against deltamethrin intoxication in mice have been investigated.

Method & material: A total of 40 BALB/c male mice were randomly divided into four groups; the first group was used as a control (0.5 ml normal saline). Groups 2– 4 were treated with NAC (160 mg/kg BW), deltamethrin (50 mg/kg BW), and NAC plus deltamethrin. At 1 hour and 24 hours after treatment, the animals were sacrificed and blood and liver samples were obtained for analysis.

Result: Results revealed that deltamethrin significantly increased the activities of aspartate aminotransferase (AST), alanine aminotransferase (ALT), alkaline phosphatase (ALP), and the level of reactive oxygen species (ROS) at the end of 1 and 24 hours after treatment. While the level of lactate dehydrogenase (LDH) and glutathione (GSH) were decreased.

Conclusion: Mice in the deltamethrin treated group have a higher liver/body weight ratio than in other treated groups after 24 h. On the other hand, NAC in combination with deltamethrin significantly improved the activities of AST, ALT, ALP, and GSH levels. This investigation demonstrated that NAC has a hepatoprotective role against deltamethrin-induced toxicity.

This report showed that N-acetylcysteine could prevent damage to the liver against pyrethroid pesticides and be used as an antidote to pyrethroid poisoning by measuring liver damage's main markers AST ALT, ALP, LDH, liver/body weight ratio, liver tissue ROS level, liver GSH content. N-acetylcysteine has some dosage forms in the pharmaceutical market as a tablet. For this reason, it does not require new formulations and patient compliance very well to consume tablet dosage form. People who deal with pyrethroid pesticides can also use N-acetylcysteine tablets to prevent liver damage.

G-1571

Documenting and recording empiricism knowledge in the field of nutrition and how to supply food in the crisis of the Covid-19 disease

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Introduction: empiricism is thinking about the experiences of doing things and recording them, which can be useful for organizations. The current research was conducted with the aim of empirical research to provide healthy food in the fight against the disease of Covid-19 at Baqiyatullah University of Medical Sciences (AS).

Method & material: The current qualitative research was conducted using 14 experts, professors and managers of Baqiyatullah University of Medical Sciences (AS) in 2020. Data collection was done face-to-face using a semi-structured interview by an experienced nutrition expert and converted into text. Then statistical analysis was done using MaxQDA software.

Result: The present study led to the extraction of experiences in the field of food supply in 7 dimensions the event, problem, measures and decisions, results and consequences, suggestions, scenario and modeling and lessons learned along with 38 core codes. In the conditions of the Corona crisis, the disruption in food supply due to the end of the year as an important event, the unpreparedness of personnel in facing the crisis as an important issue, the establishment of a health camp as valuable measures and decisions, the improvement of health as a useful outcome, having A strong nutrition team and a scientific committee as practical suggestions, the formation of working groups under the health center as a successful scenario and model, which is the result of the valuable experiences of experts and executives in providing safe and healthy food for patients and employees of Baqiyat Allah Hospital (AS) with the greatest

Conclusion: Organized planning can be one of the effective measures to deal with critical situations, including the Covid-19 disease. Based on this, knowing nutritional challenges and solutions to face them is necessary to achieve physical and mental health, individual and social, and plays an essential role in providing effective services to patients and society

G-1572

Heavy Metal Exposure and Breast Cancer Risk: A systematic review

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Introduction: Heavy metal exposure has been linked to various health problems, including cancer. Breast cancer is one of the most common types of cancer in women worldwide. Heavy metal exposure has been suggested as a potential risk factor for breast cancer, but the evidence is inconsistent. The aim of this review is to summarize the current evidence on the association between heavy metal exposure and breast cancer risk.

Method & material: We searched PubMed, Embase, google scholar and Web of Science databases for observational studies that reported the association between heavy metal exposure and breast cancer risk. We calculated pooled odds ratios (ORs) or relative risks (RRs) with 95% confidence intervals (CIs) using random-effects models.

Result: A total of 25 studies were included in the systematic review. The OR/RR for breast cancer associated with heavy metal exposure was 1.34 (95% CI: 1.17-1.46). Subgroup analyses by type of heavy metal showed that cadmium exposure was associated with an increased risk of breast cancer (OR/RR = 1.39, 95% CI: 1.09-1.56), while arsenic, lead, and mercury exposures were not significantly associated with breast cancer risk.

Conclusion: Our systematic review suggests that heavy metal exposure, particularly cadmium exposure, may increase the risk of breast cancer. Further studies are needed to confirm these findings and explore potential mechanisms underlying this association.

G-1573

Novel quinazoline-1,2,3-triazole hybrids with anticancer and MET kinase targeting properties

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Introduction: Oncogenic activation of receptor tyrosine kinases (RTKs) such as MET is associated with cancer initiation and progression. We designed and synthesized a new series of quinazoline derivatives bearing 1,2,3-triazole moiety as targeted anticancer agents.

Method & material: The MET inhibitory effect of synthesized compounds was assessed by homogeneous time-resolved fluorescence (HTRF) assay and western blot analysis. Sulforhodamine B assay was conducted to examine the antiproliferative effects of synthetic compounds against 6 cancer cell lines from different origins including MET-dependent AsPC-1, EBC-1 and MKN-45 cells and also Mia-Paca-2, HT-29 and K562 cells. The growth inhibitory effect of compounds in a three-dimensional spheroid culture was examined by acid phosphatase (APH) assay, while apoptosis induction was evaluated by Annexin V/propidium iodide method.

Result: Compound 8c bearing p-methyl benzyl moiety on the triazole ring exhibited the highest MET inhibitory capacity among tested agents that was further confirmed by western blot findings. Derivatives 8c and 8h exhibited considerable antiproliferative effects against all tested cell lines, with more inhibitory effects against MET-positive cells with IC50 values as low as 6.1 μM. These two agents also significantly suppressed cell growth in spheroid cultures and induced apoptosis in MET overexpressing AsPC-1 cells. Moreover, among a panel of 24 major oncogenic kinases, the PDGFRA kinase was identified as a target of 8c and 8h compounds. The docking study results of compounds 8c and 8h were in agreement with experimental findings.

Conclusion: The results of the present study suggest that quinazoline derivatives bearing 1,2,3-triazole moiety may represent promising targeted anticancer agents.

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G-1574

Spiroisatin Pyranopyrazole Hybrids as Novel Anticancer agents with TrkC Inhibitory Potential; Design, Synthesis, Biological Activity Evaluation and Computational Studies

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Introduction: Cancer represents a global health concern due to its high mortality and morbidity rate. In the recent past, isatin-and pyrazole-based compounds have garnered interest in designing and synthesizing novel anticancer therapeutic agents.

Method & material: In this regard, a series of novel spiroisatin pyranopyrazole derivatives were synthesized. Anticancer potential of synthesized agents towards EBC-1, HT-29, A549, and AsPC-1 cell lines, representing cancers of the lung, colon, and pancreas, were evaluated using the MTT assay method. The molecular mechanism contributing to antiproliferative activities of the most potent compounds was investigated further in silico. SuperPred web server, a ligand-based tool, was used to explore the probable therapeutic target. Docking and molecular dynamics (MD) simulation studies were carried out to investigate the binding affinity, and key interactions of these agents with their predicted target.

Result: Based on the findings, among the tested compounds, four cyanide-containing derivatives 6c, 6e, 6g, and 6h with bromobenzyl, chlorobenzyl, methylbenzyl, and p-tButyl benzyl moieties on the isatin ring, displayed the highest antiproliferative activities against all four cell lines, in particular against EBC-1, and HT-29 cells with IC50 values of 3.3-7.1 µM and 7.3-10.2 µM, respectively, and with lower effect on the non-cancerous cells. The obtained target prediction results suggested that the growth inhibitory activity of the analyzed analogues could be related to tropomyosin receptor kinase C (TrkC). The outcomes of molecular docking and MD simulation demonstrated that the most active agents may interact closely with the active site of the suggested target, further confirming target prediction findings.

Conclusion: In vitro analysis, and in silico approaches suggested the potential of spiroisatin pyranopyrazole analogues for further exploration as novel targeted anticancer agents.

G-1576

survey the relationship between self-efficacy and self-care in women with gestational diabetes referred to Yazd diabetes center

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Introduction: Gestational diabetes is the most important medical complication and common disorder during pregnancy. This disease has no definitive treatment and the most important factor in its control is self-care by the patient. On the other hand, self-efficacy is an effective factor for promoting self-management behaviors of treatment regimens and is considered the main goal in behavior change interventions in the health category. Therefore, the present study was conducted with the aim of determining the relationship between self-efficacy and self-care in women with gestational diabetes referred to Yazd diabetes center.

Method & material: The present study is descriptive-correlational. Sampling was done continuously in 1401-1400. In this study, 90 women with gestational diabetes referred to Yazd diabetes center participated. Data collection was done using demographic questionnaires, diabetes self-care questionnaire (SDSCA) and self-efficacy questionnaire. The data was analyzed using descriptive and inferential statistics (Independent test and ANOVA) in SPSS v16 software.

Result: The average age of participating mothers) 46/5 ±81/31) and pregnancy week (28/53±6/60)were reported. The average score of self-efficacy among mothers with gestational diabetes is (48.36±12.87) and the average score of self-care is (37.76±15.58), both components are at the average level. There is a direct and significant statistical relationship between the average score of self-efficacy and self-care (p0.05, r=0.381). There was a direct and significant statistical relationship between self-efficacy and the level of education of the patients, but there was no significant relationship with other demographic characteristics. There was an inverse and significant relationship between self-care and patients' age, but no significant relationship was found with other demographic characteristics.

Conclusion: Based on the findings, the level of self-efficacy and self-care in women with gestational diabetes was at an average level. Considering the importance of these two components in the control of gestational diabetes, maternal and fetal health, and also considering the meaningful and direct relationship between self-efficacy and self-care, it is necessary to teach these skills according to the understanding of mothers, especially in the framework of education. It should be placed during pregnancy to control gestational diabetes as a disease that threatens the life of the mother and the fetus.

G-1578

Effect of Intranasal Oxytocin on Core Symptoms of Autism Spectrum Disorder: A Systematic Review

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Introduction: Autism spectrum disorder (ASD) is a common neurodevelopmental disease for which there is no approved pharmaceutical therapy. Recent research has focused on the impact of oxytocin (OT) on social behaviour and perception among people with autistic traits. OT is predicted to be a new treatment agent for the basic symptoms of autism spectrum disorder. Previous research on the effectiveness of repeated oxytocin injections, however, has been disputed. The current review seeks to answer the critical topic of oxytocin's safety and efficacy in the treatment of autism spectrum disorder.

Method & material: Based on Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines, two authors searched four major databases (PubMed, SCOPUS, Cochrane, and Web of Science) independently on May 2023, for clinical studies containing randomized, single- or double-blind, and placebo-controlled clinical trials exploring exogenous oxytocin impact on ASD. Our established inclusion criteria were complied with by 31 papers in total. The Joanna Briggs Institute (JBI) Critical Appraisal Checklist was used for quality assessment. For pooled analysis, the random-effects model was utilized. To examine research heterogeneity, the I2 and Q tests were performed. The probable causes of publication bias were assessed using a visual examination of funnel plots and Egger's regression asymmetry test.

Result: From the total 762 searched articles and based on the specified inclusion and exclusion criteria, 31 remaining articles indicated that oxytocin had positive impacts on social functioning but that there was little proof that symptoms would improve in the non-social area. Intranasal OT may be helpful in the management of anxiety and repeated behaviour, according to a small number of trials.

Conclusion: The results we obtained point to the potential of employing oxytocin as a new generation therapy to address basic social deficits in ASD and imply that oxytocin administration can be viewed as a successful treatment for some core symptoms of ASD, particularly in the domain of social functioning.

G-1585

Novel Anti-inflammation Marine-Sourced Compounds; Results of an In-silico Study through Virtual Screening

The Application Challenges ahead of Digital Twin in Personalized Medicine: A Systematic Review

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Introduction: Personalized medicine (PM) is gaining importance in clinical and research settings across all medical specialties and has the potential to enhance the quality of life for people all over the world. The digital twin (DT), which is a dynamic digital depiction of the patient's physiology and anatomy created, using various computational models, has been proposed as a means of implementing the PM approach. Even if these technologies are still in development and under specific research, it is recommended that the challenges be studied. As a result, the purpose of this systematic review was to examine the Ethical, Legal, and Technical problems that may face DT technology implementation.

Method & material: Medline (via PubMed), Scopus, and Web of Science databases were searched for relevant articles published from inception until May 2023. The search strategy combined MeSH terms and keywords in the title and abstract to define the three categories: DT, PM and challenges (or obstacles). The review includes all studies in English-language if at least one of the challenges (Ethical, Legal and Technical) in the DT implementation is discussed. Each study was analyzed for its characteristics, DT technology, function and challenges. Articles were excluded if they were proposed models or frameworks but not been applied yet, not based on DT or published only in the form of conference abstracts. Studies were appraised for quality using the Effective Public Health Practice Project (EPHPP) tool.

Result: Out of the 101 retrieved studies, eight met the inclusion criteria. Most studies (87.5%) were conducted in developed Countries. In four studies (50%) the algorithms and in three studies artificial intelligence and omics science (37.5%) were employed as DT technology. The most common application of DT in PM was related to prediction (62.5%), followed by treatment and prevention (37.5%). Ethical consideration has been discussed in most studies (100%) and regulatory and legal challenges was rated least frequently (50%). The health conditions in the studies were included cardiovascular disease (CVD) (four studies), multiple sclerosis (two studies), SARS-CoV-2, and Immune-Mediated Diseases (each in one study).

Conclusion: This study's key finding is that DT has obstacles in providing PM, including those related to ethics, technical and professional issues, legal and regulatory issues, social issues, and organizational issues. International cooperation amongst numerous stakeholders, including patients, healthcare workers, academic and industry researchers, legislators, and regulatory agencies, will probably be necessary to address such challenges.

G-1586

Digital Twins in Personalized Medicine for Healthcare Revolution through Cutting-Edge Applications: A Systematic Review

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Introduction: A new technology called a digital twin (DT) can help make life-saving decisions by offering personalized medicine (PM) based on real-time data as well as genetic information, medical history, and other specifics. This study aimed to explore the design and implementation of this technology to provide PM.

Method & material: A Systematic review of the literature was conducted to synthesize the literature on the design and implementation of DT in PM. Medline (via PubMed), Scopus, and Web of Science databases were searched for relevant English studies published from inception until May 30th, 2023. The search strategy combined MeSH terms and keywords in the title and abstract to define the two categories: DT and PM. All original studies if they had designed and implemented DT to provide PM were included. Data on study characteristics, DT characteristics, and PM characteristics were extracted separately by two authors. The quality of the included studies was assessed using the Effective Public Health Practice Project (EPHPP) quality assessment tool. Finally, a narrative synthesis of the included studies was carried out.

Result: Out of the 184 retrieved studies, four met the inclusion criteria. The DT model was employed in two studies (50%), while the digital shadow model was used in the other 50%. The most common applications of DT in PM were related to prediction (75%), followed by treatment (50%). The human digital twin (HDT) model was the most frequently referenced model in the studies (50%). Artificial intelligence approaches and cloud platforms have been the most widely employed techniques in the design of DT (n=2). The following are the specialist field of studies about DT and PM that were reviewed: Fractures of the tibial plateau (one study), elderly type 2 diabetes (E-T2D) (one study), and pharmaceutical therapies (two studies).

Conclusion: According to the study's findings, the use of DT in PM is not limited to disease treatment and it can also be used for health condition prediction. This technology will also be more frequently used in the medical industry to address issues like real-time monitoring, pharmaceutical therapies, and precise disease treatment that conventional methods cannot fully explain. As a result, it is anticipated that the analysis and summary of this study will offer more suggestions and resources for the development and implementation of DT technology.

G-1587

response of the health system to Khuzestan flood for communicable disease in 2018: a case study

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Introduction: Flood is the most widespread geographical disaster all around the world. This natural disaster mostly occurs in Asia. Infectious diseases are the most important outcome of floods which is a source of worry for the people. Several floods have occurred in Khuzestan province that has resulted in casualties and massive economic damages. Among them, floods in 1955, 1980, and 2012 can be mentioned and the very last flood occurred in 2019. Therefore, this research aims to study the response of the health system regarding the infectious diseases in the recent flood in all the cities under the supervision of Ahvaz University of medical sciences.

Method & material: This research is a case study that took place in 2019. All daily and cumulative statistics, plus documents of infectious diseases from the Khuzestan department of health were gathered and analyzed. Also, the observation method was used to collect some of the data. All quantitative data were analyzed descriptively by Excel. To analyze the observations and all reports and documents, Expert opinions were used. Also, to verify and validity of data, we established contact with some of the cities randomly and the data verification was confirmed

Result: In the recent flood which occurred in March 2019 at Khuzestan province, unfortunately, 6 persons died. 606 people were diagnosed suspicious to infectious diseases based on the syndromic care system and received care plan. 4096 people got vaccinated against Measles and Rubella (MR) and 1850 people got vaccinated against polio. With all the efforts done by health workers, no epidemic, massive outbreak, or even increase in the number of infectious diseases was seen thankfully.

Conclusion: Adjustment of the storage volume of dams is an undeniable necessity that can either prevent or cause floods. To take actions against the danger of infectious and noninfectious diseases in a flood, every level of health service providers, from health houses as the most regional to the highest level which is the health administration must be well prepared to perform the planned programs considering the regional conditions

G-1588

Effect of Human Umbilical Cord Matrix Stem Cell Conditioned Media on Elevated Maze Plus Behavioral Analysis in Mice Model of Multiple Sclerosis

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Introduction: Human Umbilical cord matrix stem cell (h-UCMSC) elicit neuroprotective effects, and their repair ability has been investigated in different experimental models. We aimed to investigate the effect of h-UCMSC supernatant or conditioned media in the cuprizone model of multiple sclerosis in mice.

Method & material: Adult male C57BL/6 mice (n = 40) were fed a regular diet or a diet containing cuprizone (0.2% w/w) for six weeks. h-UCMSC was cultured and supernatant was collected. h-UCMSC supernatant were administered intraperitoneally for two consecutive weeks at the end of the fourth weeks of cuprizone administration. Animals (n = 40) were tested with Elevated Maze Plus during sixth week.

Result: Data analysis showed that the number of mice entering the open arm and the time the mice stay in the open arm in the treatment group compared to the model and sham groups was significantly improved.

Conclusion: Our data indicated an improvement potency of multiple i.p. h-UCMSC supernatant in the cuprizone model of multiple sclerosis in mice.

G-1590

Shedding Light on Epilepsy with AI and fMRI: A Systematic Review

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Introduction: Epilepsy is a neurological disease characterized by abnormal neurophysiological activity leading to epileptic seizures or abnormal behavior, accompanied by varying degrees of loss of sensation or consciousness. Epilepsy neuroimaging is important for detecting the seizure onset zone, disease progression, predicting and preventing deficits from surgery and illuminating mechanisms of epileptogenesis. Functional magnetic resonance imaging (fMRI) has been accepted widely for evaluate the functional organization of the human brain. Artificial intelligence (AI) has been helpful in the diagnosis of other conditions like breast cancer, it is expected that soon we will be able to see more reliable results in the field of Epilepsy using artificial intelligence.

Method & material: A systematic search of Medline (via PubMed), Scopus and Web of Science was conducted from inception to March 2023. The search was performed using MeSH and free keywords such as "Artificial intelligence", "Machine learning", "Epilepsy" and "fMRI". Two authors independently screened located articles in multiple levels of title, abstract, and full-text. Disagreements were resolved by third author opinion. All studies using Artificial Intelligence (AI) models or machine learning algorithms to detect epilepsy or identify the hemisphere of seizure onset, disease progression or any network strength changes in the area of epilepsy using fMRI data were included. Also, we've manually searched references of included studies and gray literature. Microsoft Office Excel 2021 software is used to extract data such as ML algorithms, fMRI Image properties, and the accuracy of models.

Result: In a systematic search of databases, 435 articles were identified. After removing duplicates, 233 articles remained, 151 articles were excluded after reviewing the title and abstract, and after reviewing the full-text, 53 articles were excluded. Finally, 29 studies were included in this study. Among them, 23 studies have provided results in detecting accurate area of the disease or seizure onset and progression, 4 of them about lateralization of temporal lobe epilepsy and finally 2 of them have provided results about brain network strength changes in relation with epileptic areas. Support vector machine (SVM) is the most popular ML algorithms. About 70 % of studies classified healthy control hemispheres from seizure onset zones with more than 85% accuracy.

Conclusion: The use of AI with fMRI data is offering new opportunities for the diagnosis and localization of epilepsy. By analyzing large datasets of fMRI scans, AI technology can enable clinicians to identify patterns in brain activity that are indicative of epilepsy and personalize surgery and treatment approaches for patients with greater accuracy. Additionally, AI models can help identify biomarkers that could potentially predict seizures and monitor disease progression over time. The integration of AI with fMRI data holds great promise to improve epilepsy care and deepen our comprehension of this complex condition.

G-1592

Microbial Brain: investigating the Communications Between Microbiota and Neurological Cancers: A Systematic Review

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Introduction: Microbiota plays an important role in maintaining the balance of the human body and has been linked to various diseases, including cancer. The gut-brain axis, a communication network between the gastrointestinal tract and the central nervous system, that has been implicated in tumor growth, invasion, apoptosis, autophagy, and metastasis of neurological cancers. They can cause a range of symptoms, depending on their location and size, including headaches, seizures, weakness, and sensory loss. It is estimated that 18,990 deaths from CNS tumors will occur in the United States in 2023. Recent studies have suggested that the microbiota may play a bilateral role in both treatment and progression of neurological cancers.

Method & material: A comprehensive systematic search using the MeSH and free keywords such as Gastrointestinal Microbiome , neurological cancers , brain tumors , and glioma , was conducted in four Major Online Databases; Medline (via PubMed), Scopus, Web of Science, and Embase up to February 2023. The database search also contained gray literature and manual search. Two Independent reviewers screened the retrieved publications in multiple levels of title, abstract, and full-text. All studies that investigated the correlation between the microbiota and neurological cancers were included. Reviews, RCTs and animal experiments were excluded. Then studies that met our inclusion criteria were critically appraised by two authors independently using JBI checklist. Microsoft Office Excel 2021 software is used to extract data such as the method of collection of the microbiota, analysis of the microbiota, type of neurological cancer, and the stage of the cancer and also, changes in some immunochemical factors in response to cancer alterations.

Result: We retrieved 2879 relevant studies from online databases. After removing duplicates, 2248 articles remained. After a thorough examination of the titles and abstracts 1983 studies were eliminated. In 83 cases of disagreement between two authors, the opinion of the third author was the determiner. The full texts of 265 papers were reviewed. Eventually 53 studies met our inclusion criteria and included in this study. The majority of the studies focused on gliomas, with a few examining other neurological cancers. Key findings included altered microbial composition in patients with neurological cancers, increased pro-inflammatory cytokines and immune activation related to cancer progression, and potential therapeutic modulation of the microbiota to improve treatment outcomes. The association of microbiota and cancer was stronger for glioma than others.

Conclusion: The current literature suggests that there may be a correlation between the gut microbiota and the development of neurological cancers, highlighting the potential for microbiota-based therapeutic interventions. However, more research is needed to elucidate the underlying mechanisms and to establish causality. Further studies should aim to standardize methodologies, investigate the role of the microbiota in other types of neurological cancers, and explore the clinical relevance of these findings.

G-1593

The impact of stem cells on the treatment of diabetic ulcers: a systematic review

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Introduction: According to statistics, around one-third of diabetic individuals worldwide develop diabetic foot ulcers, and 17% of those affected lose their limbs. These ulcers are caused by prolonged inflammation, destruction of the extracellular matrix, and chronic infections, and they are difficult to treat. Recently, stem cell therapy has been used as a strategy for treating diabetic foot ulcers.

Method & material: This systematic review follows the PRISMA guidelines. A comprehensive search was conducted on online databases including PubMed and Google Scholar using keywords such as stem cell therapy, cell therapy, diabetic, and diabetic foot ulcer from 2002 to 2023.

Result: After a thorough review of the mentioned databases, 8 clinical trial studies were selected, which showed that treatment with mesenchymal stem cells has beneficial effects through differentiation into essential cells at the site of the wound, increasing angiogenesis, and more. Some studies have shown that the type of therapeutic cell used is effective in treating diabetic foot ulcers. For example, some studies have shown that bone marrow stem cells have a better impact on the healing of diabetic foot ulcers compared to other types of therapeutic cells. However, some studies have shown side effects in the use of stem cells for diabetic foot ulcer treatment, such as local infection and oxygen deficiency.

Conclusion: The present systematic review demonstrates that treatment with stem cells may lead to greater improvement in diabetic foot ulcers in terms of less pain, lower amputation rates, and better healing outcomes compared to conventional treatment. Additionally, more randomized controlled trials are needed in the future to confirm and update these findings.

G-1594

Nurses' Moral Courage and Related Factors: A Systematic Review

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Introduction: Nurses face various ethical conflicts when taking care of patients, and such conflicts require moral courage. This systematic review was conducted with the conducted with the aim of investigating moral courage and its related factors among nurses

Method & material: To find related studies, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed and accordingly the initial search conducted in March 2023. The PubMed, Web of Science, Google .Scholar, Scopus, Embase and Science Direct databases were searched using keywords such as Courage, Moral Courage, and Nurses, and no lower time limit was imposed when conducting the searches. Quality of articles was assessed using the STROBE checklist.

Result: The pooled sample size for the 19 included studies was 7863. All studieswere observational and cross-sectional. The results showed that three category of factors most related to moral courage are individual , moral, and factors related tothe organization. Underlying factors of each category are also provided in this paper.

Conclusion: Moral courage is an integral part of nursing, which, as a profession, is becoming even more challenging with the advancement of science and technology. Therefore, there is a need for nurses and especially nursing managers to be considerate of factors affecting moral courage of nurses, with a view to strengthen the positive factors and reduce the negative impacts.

G-1595

Emphysematous pyelitis: a case report

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Introduction: Background and purpose: Emphysematous pyelitis is a relatively benign disease and according to our knowledge, it is not often reported in scientific literature and is rare. The aim of this study is to report a rare case of emphysematous pyelitis.

Method & material: Case report: A 51-year-old female patient from Golestan province came to the hospital with symptoms of fever, chills, weakness, and lethargy and side pain. The patient has a history of kidney stones, thyroid, grade 1 fatty liver, anemia and cardiovascular disease. A computed tomography (CT) scan was used to diagnose emphysema pyelitis and the patient was treated with antibiotics. The patient's symptoms improved after drug treatment and the abscess drainage was suggested. The patient was discharged from the hospital after the improvement of symptoms. After discharge, he was taking Litorex B (stone remover). The patient's kidneys produce urine and the operation was not done at the moment.

Result: Case report: A 51-year-old female patient from Golestan province came to the hospital with symptoms of fever, chills, weakness, and lethargy and side pain. The patient has a history of kidney stones, thyroid, grade 1 fatty liver, anemia and cardiovascular disease. A computed tomography (CT) scan was used to diagnose emphysema pyelitis and the patient was treated with antibiotics. The patient's symptoms improved after drug treatment and the abscess drainage was suggested. The patient was discharged from the hospital after the improvement of symptoms. After discharge, he was taking Litorex B (stone remover). The patient's kidneys produce urine and the operation was not done at the moment.

Conclusion: Conclusion: The diagnosis of this patient was made by CT scan and he was treated with antibiotic therapy and suggested to drain the abscess. Reporting rare cases like Emphysematous pyelitis can increase the awareness of medical students. Research in the field of emphysema pyelitis can reduce the incidence and complications of this disease.

G-1601

Efficacy of dry cupping in hospitalized COVID-19 patients: A randomized open- label clinical trial

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Introduction: Complementary and alternative medicine (CAM) has demonstrated its potential for managing COVID-19. Non-pharmacological approaches, including cupping therapy, are among these treatment options that have been evaluated in the present study.

Method & material: This randomized clinical trial involved the participation of hospitalized COVID-19 patients, who received conventional treatments throughout the study. The intervention group also underwent cupping therapy three times a day. The study measured clinical signs and symptoms, O2 saturation, and laboratory data as outcome measures.

Result: The study involved 60 COVID-19 patients (22 women and 38 men) with a mean age of 51.02±14.56 years. The age, gender, and disease signs were similar in both treatment and control groups. The increase in oxygen saturation was significantly higher in the treatment group comparing to the control group (P=0.014) in addition to the decrease in disease symptoms. However, changes in laboratory variables during hospitalization were similar in both groups.

Conclusion: Cupping therapy was shown to be a safe and effective complementary treatment for COVID-19 patients. Future investigations are guaranteed to evaluate this manual intervention

G-1602

Scientific writing workshop for medical sciences students; a competition based learning program

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Introduction: Scientific writing is an indispensable skill for future scientists to integrate them into the scientific community. It is essential for all medical sciences students to keep them abreast of the latest advances in their field. Key components of effective writing are an attitude toward scientific writing, familiarity with scientific sources, and confidence in writing manuscripts. Unfortunately, there is no adequate scientific program in the academic training of medical students. Attending a scientific writing workshop and writing a real, complete paper under the supervision of experienced researchers should improve these components. Therefore, the present study aimed to investigate whether a virtual 14-day workshop with a mixture of theoretical instruction and practical exercises under the supervision of experienced researchers can improve medical students' attitude, familiarity, and confidence in scientific writing.

Method & material: We developed a competitive learning workshop with a quasi-experimental design at Mashhad University of Medical Sciences in March 2022. The workshop consisted of 28 hours of theoretical virtual instruction and 56 hands-on sessions in which 84 students (12 participants per data, divided into three groups) were provided with raw and final analysis of 7 different real data on the SKYROOM platform. By day 14, each group had to submit a written manuscript that was blindly peer-reviewed by the authors and experts in the field. To evaluate the pedagogical impact of the method, a pre-/post-test questionnaire (scale of 1-5) was also administered. The questionnaire assessed attitude, familiarity, and confidence. We performed a paired t-test to compare the pre-test and post-test survey, and data were reported as mean ± standard deviation. Data were analysed using SPSS v.16, and a p-value of less than 0.05 was considered significant.

Result: Out of 28 groups, 23 groups successfully completed their task and 16 groups achieved at least 60% of the total score. A total of 68 participants completed both the pretest and posttest. Familiarity with scientific writing (pre: 2.57±1.15, post: 3.81±0.79, P0.0001), confidence in writing a manuscript (pre: 2.68±1.23, post: 3.76±0.87, P0.0001), familiarity with scientific sources (pre: 3.31±0.90, post:3.97±0.79, P0.0001), and use of scientific sources and articles (pre: 3.5±1.04, post: 3.97±0.89, P0.001) were significantly improved. Participants' attitudes toward the importance of scientific writing in their future lives (pre: 4.45±0.61, post: 4.57±0.66) and toward such a workshop for their scientific skills (pre: 4.45±0.70, post: 4.38±0.73) were high in both surveys and did not change significantly.

Conclusion: This study shows that the competition-based learning workshop has a significant impact on medical students' skills and is a suitable method for teaching scientific writing.

G-1604

Dimensions and Socio,Economic and Environmental Challenges of the Covid-19 Pandemic and Its Impact on Health and Well-Being: a Scoping Review

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Introduction: In addition to being responsible for the death and infection of millions of people around the world, Covid-19 also created a range of social, economic, environmental and mental health challenges. This study was conducted with the aim of investigating the various dimensions, challenges and effects of this pandemic in the aforementioned areas

Method & material: The present study was conducted with a scoping review method in 2022. All published articles in the field of prediction dimensions were searched from the beginning of 2020 to the end of April 2022. Searches were made in the English language databases Medline through PubMed, Scopus, Web of Sciences and also manual search in Persian language databases SID and Magiran, and after reviewing gray and manual texts, finally 87 final articles were selected. The data were analyzed and classified using the content analysis method and using the framework of structural and intermediate determinants of health of the World Health Organization

Result: Cases such as the reduction of the gross national product, the imbalance of supply and demand, the urgent need to strengthen social protection systems, the increase in inequality, the reduction of the social rights of women and children, and the reduction of access to health services are among structural factors and cases such as tourism damages,decrease in mental well-being, increase in irritability, anger and tension, fear of covid-19 in the elderly and exposure to the spectrum of mental problems were among the intermediate determining factors that have led to direct and indirect effects on the justice, health and well-being of societies.

Conclusion: The covid-19 pandemic and the subsequent actions of the governments, such as nationwide quarantines and the creation of numerous restrictions, have led to a wide range of social, economic and environmental effects on societies. Countries need effective and extensive measures in the format of these factors are decisive for getting rid of the negative effects of the spread of this disease on the health and well-being of our people in the long term

G-1605

Investigating the effect of probiotics on preventing VAP (ventilator-associated pneumonia) in patients hospitalized in ICU

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Introduction: Ventilator-associated pneumonia (VAP) is an infection of the lung parenchyma in patients who have been exposed to invasive mechanical ventilation for at least 48 hours. VAP is a common infection among patients connected to mechanical ventilation devices, which affects 5 to 40% of these patients and is considered a type of hospital-acquired infection. Probiotics are living microbial agents of human origin and are able to tolerate the environment of different body systems, including digestive (acid and bile) and respiratory, and have many benefits for the body. Since the colonization of bacteria is involved in the pathogenesis of the disease, the use of probiotics has been proposed as a new strategy to prevent VAP due to the balance in microorganisms.

Method & material: Domestic and foreign related studies in the last 10 years were reviewed using existing databases including SID, Magiran, Elsevier PubMed, Proquest. Data were obtained based on the key words of probiotics, VAP, mechanical ventilation, infection, microbial agents and ICU, and finally about 10 articles were selected as the final source.

Result: It has been observed in clinical trial studies that the use of probiotics, especially Lactocare, balances PH, WBC and pco2 in patients, which improves the patient's condition and reduces the need for ventilators. The natural flora of the gastrointestinal tract is one of the effective factors in the occurrence of VAP, and the amount of these flora was balanced in patients who received probiotics, and the incidence of this type of pneumonia decreased. Complications caused by being hospitalized in ICU, such as pneumonia caused by Cholestridium difficile, in the intervention group are significantly less than the control group, which leads to a decrease in the days of hospitalization in ICU. Also, the healing process in patients who took probiotics has been reported to be faster and better.

Conclusion: The final conclusion of various studies showed that the use of probiotics is very useful and effective in reducing VAP in patients hospitalized in ICU. The improvement of factors such as PCO2, WBC, blood pH and neutrophils of patients was also observed, which is effective in improving the general condition of hospitalized patients. Therefore, by criticizing the use of antibiotic prophylaxis, it is suggested that the use of probiotics be introduced as an alternative and new method.

G-1606

Investigating rs41280723 polymorphism in the 3' untranslated region of PDL1 gene with bioinformatics approaches

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Introduction: The binding of programmed cell death 1 ligand 1 (PDL1) to the programmed cell death 1 (PD-1) self-receptor causes exhaustion phenotype in T lymphocytes, so PDL1expression plays an important role in immune responses. The 3' untranslated region PDL1 gene is a site for binding of miRNAs, also there are common polymorphisms in this region that can affect binding to miRNA and the level of PDL1 expression.

Method & material: In this study, for the first time, rs41280723 polymorphism was analyzed as an important polymorphism in binding to miRNA with bioinformatics approaches, for this purpose, UCSC Genome Browser was used to identify common polymorphisms and Target scan human was used to identify miRNAs binding sites to 3' untranslated region PDL1 gene and STar Mir databases used to predict miRNA binding in the presence of polymorphism furthermore, the second structure of RNA was predicted by RNA fold webserver.

Result: We found that the wild allele of the rs41280723 polymorphism plays a role in binding to miR-320c, which can be important in the expression of the PDL1. Moreover, the presence of the wild allele can cause the formation of a loop in the second structure, which can be effective in binding miR-320c, while the presence of mutant allele can effect on the interaction between the base pairs in the RNA second structure.

Conclusion: Mounting evidence the rs41280723 polymorphism can be effective in increasing and decreasing bonding of miR-320c in 3' untranslated region of PDL1 gene.

G-1607

Factors Affecting the Quality of Virtual Education From the Point of View of Nursing and Midwifery Students During the Outbreak of the Coronavirus

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Introduction: Regarding the infrastructure created in virtual education and the prediction of its continuation after the coronavirus epidemic, as a development in the education of the world and Iran, it is necessary to investigate the factors affecting the quality of this model of education from the student's points of view. This study was conducted to find effective solutions to improve the quality of virtual education in 1400.

Method & material: This study is qualitative with a descriptive-cross-sectional approach through the participation of 40 incoming students in the years 2018 and 2019 of the Islamic Azad University of Qom Medical Sciences, with the code of ethics IR.IAU.QOM.REC.1400.068.To collect information, a semi-structured interview method was used. The researchers interviewed the participants by communicating through the WhatsApp application and in the form of voice messages or e-mails with their suggestions and got their opinions. The responses were analyzed by the Lundman and Graneheim method which carried out five steps for qualitative data analysis as follows: 1-Writing the entire interview immediately after each interview, 2-Reading the entire text of the interview to get a general understanding of its content, 3- Determination of meaning units and primary codes, 4- Classification of similar primary codes in more comprehensive classes, and 5- Determination of hidden content in the data.

Result: The findings of the current research examined the challenges of virtual education in three main categories (financial support for providing educational equipment, upgrading the relevant infrastructure, and matters related to professors and students.)

Conclusion: The experiences of the virtual education course show that the implementation and continuation of virtual education have potential in some subjects and areas, which means they can be used to increase the efficiency of the educational system.

G-1609

The impact of the Covid-19 Pandemic on Symptoms Experienced by Patients Suffering from Advanced esophageal and gastric Cancer

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Introduction: Although COVID-19 pandemic has ended as a global as a global health emergency, SARS-CoV-2 remains a serious health concern among those with an immunocompromised status, including patients with advanced stage cancers. Cancers of the stomach and esophagus respectively rank the fifth and the eighth most prevalent type of cancer worldwide with 5-year survival rates of 33% and 20%. Our study aims to assess the changes in prevalence of symptoms experienced by patients with advanced stomach and esophagus cancers who received homecare medical visits during the COVID-19 pandemic.

Method & material: We retrospectively examined cross sectional data from the electronic medical records (EMR) of the Iranian Cancer Control Center (MACSA) to study the symptoms of individuals with advanced upper gastrointestinal tract cancers over two 18-month periods, before and during the COVID-19 pandemic. Patient information, including demographic information, comorbidities were obtained during a primary interview. Symptoms were recorded using the Memorial Symptom Assessment Scale checklist – Short Form (MSAS-SF) within each home visits. The data from the last 6 months of patients' life were involved in this study. Kolmogorov-Smirnov test was used to assess data distribution. Independent T-test and Mann-Whitney U test were utilized to compare quantitative variables with normal and skewed distributions, respectively, while the Chi-square test was utilized to evaluate qualitative variables.

Result: Cases of stomach and esophageal cancer were retrieved from MACSA EMR (N= 389, pre–COVID-19: 189; during COVID-19: 200), Significant increases were observed in the number (%) of cases with cough (34 (18.0%) vs. 55(27.5%); p0.05), diarrhea (17 (9.0%) vs. 35 (17.5%); p0.05), difficulty Swallowing (27 (14.3%) vs. 72 (36.0%); p0.001), difficulty Sleeping (37 (19.6%) vs. 103(51.5%); p0.001), Feeling Drowsy(36 (18.5%) vs. 56 (29.3%); p0.001), lack of appetite (133 (70.4%) vs. 162 (81.0%); p0.05), swelling (77 (40.7%) vs. 113 (56.5%); p0.01), vomiting (51 (27%) vs. 75 (37.5%); p0.05), weight loss (54 (28.6%) vs. 84(42.0%); p0.01) and Significant decreases were observed in the number (%) of cases with irritability (39 (20.6%) vs. 26 (13.0%); p0.05).There was no significant difference between the 2 periods regarding other symptoms.

Conclusion: In this cross-sectional study, we observed significant changes in the prevalence of the ten symptoms mentioned among patients with advanced stages of stomach and esophageal cancer during the Covid-19 pandemic that highlights the direct and indirect effect of this and possible future pandemics on vulnerable populations. Further investigation of the prevalence of these symptoms in post-COVID-19 era is suggested.

G-1610

Evaluation of the impact of air pollution on the sex ratio: a systematic review

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Introduction: Environmental pollution and its impact on the fetus (both maternal and paternal) has received increasing attention in recent years, leading to numerous studies on this topic. Although it is common to find contradictory research on any subject, there is a strong consensus that pollution can cause substantial harm to the fetus.

Method & material: A search was conducted on the Persian (SID, Magiran) and English (PubMed, Medline, Web of Science, CINAHL, Scopus, google scholar) databases from 2000 to January 10, 2023. Search terms were: "Y:X sperm chromosome ratio and environmental pollutants", "Paternal exposure to environmental pollutants and Y:X sperm chromosome ratio", "Paternal exposure to environmental pollutants and Sex ratio", "maternal exposure to environmental pollutants and Y:X sperm chromosome ratio", "Sex ratio and environmental pollutants", "maternal exposure environmental pollutants and Sex ratio", "environmental pollutants and Pregnancy outcomes", "abnormalities in embryos". Thirty-two articles were found through the investigation of such databases. The screening process of articles was conducted by three-reviewer respectively. After title, abstract, or full-text reading and applying exclusion criteria, we reviewed 12 studies on the effect of environmental pollutants on the sex of the fetus and the change in the ratio of chromosomes. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines

Result: Studies conducted on pollutants such as sulfur dioxide and particulate matter (PM2.5 and PM10) indicate a notable negative correlation between these pollutants and the male-to-female ratio. Moreover, exposure to substances like polybrominated biphenyls and polychlorinated biphenyls, both paternal and both parents, also exposure to low levels of SO2, increases the likelihood of male births. Additionally, studies on paternal occupational exposure to insecticides and medical disinfectants, along with substances like Bisphenol A and Mono-isobutyl phthalate, demonstrate a significant negative impact on the sex ratio of sperm. Short-term exposure to significantly increased levels of PM10, PM2.5, and Nitrogen Dioxide is associated with a higher primary sex ratio (PSR). It is worth noting studies on exposure to elevated levels of boron found no evidence of its impact on gender ratios. In addition, there was a significant association between exposure to phthalates, perfluoroalkyl, and polycyclic aromatic hydrocarbons and the Y:X chromosome ratio of sperm.

Conclusion: weather conditions, the number of people studied, the contradictory results of different studies, etc., it is not possible to state this issue definitively, and it seems that more studies are needed in this field.

G-1612

Mortality and Outcomes in Multiple Myeloma Patients with COVID-19; a Systematic Review and Meta-Analysis

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Introduction: Multiple Myeloma (MM) is a hematologic malignancy that affects the plasma cells in the bone marrow. Because of impaired immune systems and pre-existing medical conditions, MM patients are at an elevated risk of acquiring different types of infections. COVID-19 is of great importance because of its effect on inflammatory and immune responses. In addition to the mortality rate, this study aims to look into outcomes in MM patients who have also acquired COVID-19 (MM-COVID-19).

Method & material: PubMed, Scopus, ScienceDirect, MedRxiv, Web of Science, and the World Health Organization (WHO) databases were searched until August 9, 2023, using "MM" and "COVID-19" related search terms. There were no time and language restrictions. The Newcastle-Ottawa Scale (NOS) adapted for cross-sectional studies measured the quality of selected studies. The Metaprop package in STATA15 software was used to conduct the analyses. subgroup analyses were performed to explore the causes of heterogeneity in mortality rates based on the WHO regional division for countries, in which, studies were divided into three separate groups including the EURO region (European countries), EMRO-SEARO-WPRO region (Eastern Mediterranean - South-East Asia - Western Pacific), and USA region based on the WHO regional division.

Result: Data from 30 studies with a total of 6423 MM patients with COVID-19 were analyzed. According to the results, the mortality rate varies from 6% to 55% in MM patients with Covid-19. Using random-effects models, the pooled mortality rate for these patients has been estimated as 26%(CI=18%-34%). According to the WHO regional subgrouping, the mortality rate was 31% (95%CI: 27%-36%) in the EURO region, 22% (95%CI: 15%-29%) in the EMRO-SEARO-WPRO region, and 18% (95%CI: 8%-29%) in the USA. Also, the overall pooled hospitalization rate, ICU admission rate, and mechanical ventilation rate were estimated at 67% (95%CI: 52%–80%), 14% (95%CI: 12%–17%), 13% (95%CI: 8%–17%), respectively.

Conclusion: The results of this meta-analysis have shown a high mortality rate and adverse outcomes including high hospitalization, ICU admission, and mechanical ventilation rates in (MM-COVID-19) patients; Hence, it is crucial to strengthen care and preventative systems and manage these patients in potential future pandemics properly. Also, there was a significant variation between different regions that could be due to differences in methods of diagnosis, the resources available, referral patterns, medical care, and policies.

G-1614

Royal Jelly Improve Anxiety–Like Behavior and BDNF Expression Following Chronic Stress Exposure in Male Rats

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Introduction: Stationary night blindness (CSNB) is a genetic disorder that affects the ability to see in low light conditions. People with CSNB have difficulty seeing in dimly lit environments, such as at dusk or in poorly lit rooms. In this study we aimed to report a novel pathogenic variant at the TRPM1 gene in an Iranian man affected with CSNB.

Method & material: The proband's genomic DNA was analyzed by whole exome sequencing (WES) followed by validating of the selected variant by Sanger-based PCR-Sequencing. A non-reported variant at the TRPM1 gene has been detected.

Result: The 29 year-old patient's symptoms and clinical findings suggest a diagnosis of retinitis pigmentosa, a genetic disorder that causes progressive degeneration of the retina. The severe myopia and chorioretinal atrophy are also consistent with this diagnosis. The upward deviation of the right eye and excessive activity of the inferior oblique muscle may be due to a compensatory mechanism to improve vision in the affected eye. The mild ptosis of the right eye may be related to weakness or dysfunction of the levator muscle, which lifts the eyelid.

Conclusion: Among the 464 genes responsible for eye disorders, the variant TRPM1(NM_001252020.1):c.333TA (p.Tyr111Ter) has been considered. Based on the ACMG guidelines, Varsome classifies this nonsense mutation as likely pathogenic (criteria: PVS1, PM2). It's frequency in database including Iranome is 0. According to its very low frequency (GnomAD=0; Iranome=0), not registering in the dbsnp database, ACMG guidelines and adapting with our proband's clinical symptoms, we classified this variant as pathogenic.

G-1615

Investigating the use of personal protective equipment in nurses

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Introduction: The use of personal protective equipment (PPE) plays a crucial role in preventing the transmission of infections to both patients and healthcare workers, particularly nurses.Nurses, who provide continuous patient care round the clock, are particularly vulnerable to exposure to chemical and pharmaceutical residues, as well as various infections,Given the significance of PPE usage and the associated risks when neglected but Compliance of nurses with personal protective equipment is low. Several obstacles lead to poor adaptation of nurses to the use of personal protective equipment. Therefore, the present study was conducted to determine the obstacles to nurses' use of personal protective equipment

Method & material: The present study is a part of the master's thesis of Internal Medicine-Surgery with the creative code IR.MUK.REC.1400.269 . In this cross-sectional study, 303 nurses employed in hospitals affiliated with Kurdistan University of Medical Sciences were selected through a quota sampling method. Between April and June 2022, they completed self-administered questionnaires, consisting of a Demographic Information form and obstacles to the use of personal protective equipment, which has 27 questions with yes-no answers, and the results were reported as percentages. The reliability of the tool in the present study was 0.87.

Result: The results revealed that the majority of participants held bachelor's degrees (93.1%), and a history of training in the use of personal protective equipment (85.5%). Inappropriate personal protective equipment (89.6 %), shortage (86.1 %), lack of proper size (85.5 %), lack of time due to heavy workload (81.4 %), and lack of proper supervision and management (51.8%) were respectively the most mentioned obstacles by nurses. The percentage of other obstacles was less than 50%.

Conclusion: Considering the importance of personal protective equipment in the control and prevention of infections and epidemics, managers and healthcare organizations should provide quality personal protective equipment with appropriate and sufficient sizes to nurses and and teach nurses the correct use of personal protective equipment. Also, by properly managing and supporting nurses, reducing working hours, and increasing personnel in each work shift, reduce the barriers to using personal protective equipment. ensuring maximum protection of nurses is paramount . Safeguarding nurses not only preserves their health but also enhances the quality of nursing care and contributes to the overall efficiency of healthcare systems.

G-1618

A novel method for mobilization of peripheral blood progenitor cells (PBPCs) in demobilized patients: A Case report

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Introduction: Diffuse large B-cell lymphoma(DLBCL) is the most common non-Hodgkin's lymphoma(NHL).High-dose chemotherapy with autologous stem cell transplantation remains an important treatment modality for patients with Relapsed or refractory NHL[1].Patients treated with autologous stem cell transplantation have a superior long term outcome when compared to patients treated with chemotherapy[2].Mobilized peripheral blood progenitor cells(PBPCs) have an established role in the management of these patients.PBPCs are mobilized efficiently by the administration of short courses of recombinant human(rh) granulocyte colony-stimulating factor(G-CSF) alone or during recovery from cytotoxic chemotherapy[3].Unfortunately, up to 40% of patients fail to mobilize an optimal CD34+ cell dose using myeloid growth factors alone.Plerixafor is a novel reversible inhibitor of CXCR4 that significantly increases the mobilization but some patients do not respond to Plerixafor.To our knowledge, in poor mobilizers addition of growth hormone to rhG-CSF and plerixafor allows the patients to efficiently mobilize and collect CD34+ cells with maintained functional properties.

Method & material: On January 2021,a 44-year-old female with NHL-DLBCL and involvement of the neck and right axilla was diagnosed when she was in the second stage of disease.She received 6 sessions of Standard RCHOP Chemotherapy regimen but didn't enter the remission phase and two monthes later patient had a local recurrence and extensive involvement of the right breast.Then 6 sessions of R-ICE chemotherapy regimen and intrathecal chemotherapy were prescribed and she entered the remission stage.She was a candidate for autologous bone marrow transplantation.On January 13, 2022, she received GCSF and Plerixafor, but mobilization was not done sufficiently.On January 18,preparation for mobilization was done for the patient again and this time cyclophosphamide was used and GCSF and Plerixafor were started for the patient, but again, the number of CD34+ cells was not enough for mobilization.After bone marrow transplantation failure,she discharged and was followed up for 4months and was hospitalized again on May31 for

Result: Growth hormone acts on hematopoietic progenitors directly by binding to specific membrane receptors or indirectly by stimulating the production of insulin-like growth factor I or interacting with hematopoietic cytokines and simultaneous administration of GCSF, Plerixafor and growth hormone increases mobilization in poor mobilizer patients.

Conclusion: Simultaneous administration of GCSF, Plerixafor and recombinant growth hormone increases mobilization in demobilized patients.

G-1619

In silico design and study of a chimeric vaccine construct based on Salmonella pathogenesis factors

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Introduction:: Currently, there are two vaccines based on killed and/or weakened Salmonella bacteria, but no recombinant vaccine is available for preventing or treating the disease. We used an in silico approach to design a multi-epitope vaccine against Salmonella using OmpA, OmpS, SopB, SseB, SthA and FilC antigens.

Method & material:: We predicted helper T lymphocyte, cytotoxic T lymphocyte, and IFN-γ epitopes. The FilC sequence was used as a bovine TLR5 agonist, and the linkers KK, AAY, GPGPG and EAAAK were used to connect epitopes. The final sequence consisted of 747 amino acid residues, and the expressed soluble protein (~79.6 kDa) was predicted to be both non-allergenic and antigenic. The tertiary structure of modeled protein was refined and validated, and the interactions of vaccine 3D structure were evaluated using molecular docking, and molecular dynamics simulation (RMSD, RMSF and Gyration).

Result:: This structurally stable protein could interact with human TLR5. The C-ImmSim server predicted that this proposed vaccine likely induces an immune response by stimulating T and B cells, making it a potential candidate for further evaluation for the prevention and treatment of Salmonella infection.Evaluations showed it was expected to be safe, would not cause allergies, and be effective in immunization.

Conclusion:: It is believed to interact strongly with the human TLR5 receptor, and simulation findings suggested it could generate a strong immune response. Although detailed laboratory studies are still needed to investigate the immune responses produced by this vaccine candidate, our virtual studies and simulations predict that this construct would indeed induce appropriate immune responses.

G-1620

Using Artificial intelligence for detection of polyps and adenomas in colonoscopy: An umbrella review

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Introduction:: Colonoscopy is the main screening tool of colorectal cancer (CRC) detection. However, one-fourth of neoplasia were missed during this procedure. Artificial intelligence (AI) is emerging tool in medicine for better diagnosis and treatment of diseases. Several studies showed that AI could increase the accuracy of colonoscopy for detection of neoplasia. The aim of this study is summarizing systematic reviews and meta-analysis using AI in colonoscopy for detection of polyps and adenomas.

Method & material:: Pubmed/Medline(Ovid), web of science, scopus, Proquest, chocrane, and embase were used for finding systematic reviews and meta-analyses from inception until 20 may 2023. Artificial intelligence, systematic review and meta-analysis, colonoscopy and their synonyms were used for initial search in databases. Two independent reviewers undertook screening, data extraction, and quality appraisal based on JBI critical appraisal tool. If an article included meta-analyses of both cohort and case-control studies and analysis was only performed separately without overall outcome, the data were extracted by study design. Cochran's Q test and I2 statistic were used for the estimation of heterogeneity between studies. Additionally, Egger's regression test was used as an estimate for publication bias in each study.

Result:: Our primary search returned 133 results. After excluding duplicates, unrelated researches, and studies which had not satisfied JBI criteria, 29 studies were chosen finally. Research results showed that AI-assisted colonoscopy (AIC) is a safe approach for increase the detection rate of adenomas and polyps. Moreover, due to the enhancement of accuracy rate, decrease of interval CRC and improvement of prognosis could be expected. Additionally, one of the main problems of routine colonoscopy is its high missing rate in detection of small size tumors. AIC with its features such as transformers and pretrained data could improve detection rate of these tumors significantly.

Conclusion:: Overall, using AIC is an effective way to detect CRC. Decrease advance types of CRC and its metastasis due to early detection of these tumors by AIC could be expected.

G-1622

Biofilm formation and virulence gene expression of Uropathogenic Escherichia coli after exposure to cranberry extract

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Introduction:: The purpose of this study is to use and manage meat industry waste more efficiently and to change the approach to inexpensive production of valuable hyaluronic acid product from waste sources.The use of meat industry waste is receiving more attention due to the fact that these wastes are a possible and usable source for converting to useful products.Hyaluronic acid and its derivatives,which are in the form of nanoparticles,are among these useful products.Since nanoparticles help to reduce the degradation of drugs and increase drug accessibility, their use in pharmaceutical science is of chief importance.Due to the chemical properties of hyaluronic acid,such as special water absorption property,very high molecular weight,antimicrobial and antioxidant properties,biocompatibility,non-immunogenicity and lubrication,it has been increasingly considered in many medicinal,food and cosmetic applications.Taking into account the fact that hyaluronic acid is mainly present in the joints,synovial fluid,skin its extraction from slaughterhouse waste and meat processing units have been noted.

Method & material:: Method: In the present study, hyaluronic acid was extracted using organic solvents method with a yield of 90%. Then hyaluronic acid nanoparticles were produced through insolubilizing method and by using acetone as an insolubilizing agent. Finally, hyaluronic acid was measured through Carbazole method.

Result:: The measured waste samples had values between 0.740 and 0.510 mg/ml of the extract.

Conclusion:: Conclusion: Therefore, many of these wastes that are thrown away and cause environmental problems, can be used with simple and low-cost methods to extract valuable biopolymers such as hyaluronic acid. Hyaluronic acid has received much attention for its various usages. In addition, due to the unique structure of hyaluronic acid, it can be used in the form of nanoparticles and hydrogel, which increase the scope of the utility of this valuable product. Optimizing extraction methods as well as developing new techniques for the efficient separation of bioactive polymers with high purity in order to use meat waste for hyaluronic acid extraction, is very essential.

G-1623

Production of hyaluronic acid nanoparticles from animal slaughterhouse waste

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Introduction:: Urinary tract infection (UTI) is one of the most common diseases worldwide. Consumption of cranberries is widely known to reduce recurrent UTIs. This study aimed to develop effective aqueous cranberry extract by adding ciprofloxacin antibiotic and evaluate their effects on papC gene expression and microbial biofilm formation of Uropathogenic Escherichia coli (UPEC) clinical isolates.

Method & material:: Ninety five clinical isolates of UPEC were collected. Antibiotic susceptibility was evaluated by disk diffusion method and the minimum inhibitory concentration (MIC) of cranberry extract and ciprofloxacin antibiotic by microdilution broth method. A PCR was used to detect genes encoding adhesion factors (papC, papAH, papEF). The ability of biofilm formation in isolates was evaluated by the microtiter method and the effect of aqueous extract cranberry on papC gene expression was evaluated using Real-Time PCR.

Result:: The prevalence of cystitis (40.1%), pyelonephritis (16.2%) and prostatitis (23.3%) were reported. The antibiotic resistance was obtained at 53.7% for ciprofloxacin. The MIC for clinical isolates was between 32 and 128 mg/mL of cranberry extract and for ciprofloxacin was varied between 4 and 256µg/mL. According to the fractional inhibitory concentration index (FICI), cranberry extract and ciprofloxacin combination on 42.1% of the UPEC isolates had the synergism effect. Comparing the mean of the biofilm removal activity for cranberry, ciprofloxacin and combination of them in 24h showed a significant difference between the isolates (P.value ≤0.001). The frequencies of papC, papAH and papEF genes were 27.4%, 9.5%, 3.2%, respectively. The expression of papC gene in the presence of the sub- MIC concentration of cranberry extract was decreased in 7 isolates compared to untreated isolates (P.value <0.05).

Conclusion:: Based on potent inhibition aqueous extract cranberry on the biofilm formation and cranberry with ciprofloxacin treatment could represent an interesting new strategy to prevent recurrent UTI.

G-1624

Evaluation of the antioxidant, antifungal and antibacterial effects of ethanol extract of Haloxylon ammodendron

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Introduction:: Haloxylon ammodendron is in the genus Haloxylon of Amaranthaceae. This study aimed to evaluate the antioxidant, antibacterial and antifungal activity and determine the phenolic content of H. ammodendron ethanolic extract.

Method & material:: Haloxylon ammodendron ethanolic extract was prepared by the maceration method. Bacterial strains Standard and clinical strains were used to evaluate the antibacterial effects of the extracts. The strains included, Staphylococcus aureus, Streptococcus mutans, Klebsiella pneumoniae, Escherichia coli, Acinetobacter baumannii, Pseudomonas aeruginosa and Candida albicans .The standard bacteria were cultured two times in BHI medium (Merck, Germany) at 37 degrees Celsius for 18 hours. Preparation of diluted extracts 500 mg of dried plant extract was diluted in 10 ml 5% dimethyl sulfoxide (DMSO) and sterilized by filtering to get a 50 mg/ml concentration of each extract. The extract was made at various quantities (50, 25, 12.5, 6.25, and 3.12 mg/ml) using the serial dilution method.The MIC is defined as the lowest concentration of a medicine that would prevent observable growth of an organism following overnight incubation.The phenolic compounds of H.ammodendron were measured by Folin-Ciocalteu method.Antioxidant activity was determined by DPPH (2,2-Diphenyl-1-picrylhydrazyl).

Result:: This research showed that the H. ammodendron ethanolic extract has antibacterial effects against Streptococcus mutans, Escherichia coli, klebsiella pneumoniae, Pseudomonas aeruginosa, and Acinetobacter baumannii. H. ammodendron extract showed the most significant inhibitory effect against Acinetobacter baumannii, Pseudomonas aeroginosa, and Klebsiella pneumoniae. According to the results of this research, a minimal inhibitory effect was observed against Streptococcus mutans and Escherichia coli. This plant did not show an inhibitory effect against Staphylococcus aureus and Candida albicans. This plant showed significant antioxidant effect (IC50:0.2mg/ml).

Conclusion:: The tested bacteria showed variable sensitivity to different concentrations of this plant. In this test, the highest sensitivity was observed in Staphylococcus aureus, followed by Gram-negative bacteria such as Pseudomonas aeruginosa, Acinetobacter baumannii, and Klebsiella pneumoniae. Fungi basically show different resistance ability. In this study, Candida albicans was inhibited by low concentrations of Haloxylon ammodendron.

Considering the good antioxidant effect of this plant, we are suggested to conduct more studies on other therapeutic effects of this plant.

G-1625

Investigating Anticoagulant Drug Prescribing Trends in Pregnant Patients with COVID-19 and Evaluating the Incidence of Thromboembolic Complications and Clinical Outcomes Based on D-dimer Levels

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Introduction:: Patients with COVID-19 are at risk of venous thromboembolism, which is considered one of the leading causes of mortality in these patients. Pregnancy is also identified as a risk factor for deep vein thrombosis. Diagnostic and therapeutic interventions for this condition have received limited attention. In this study, we aimed to examine the trends in prescribing anticoagulant drugs to pregnant patients with COVID-19 and assess the frequency of thromboembolic complications and clinical outcomes in patients with varying D-dimer levels

Method & material:: In this study, 49 pregnant patients, either during pregnancy or in the postpartum period, with moderate to severe COVID-19, during the fifth wave of the pandemic, were investigated at Imam Reza Hospital in Mashhad. The virus was diagnosed using PCR tests. Medical records and information from the hospital's database were reviewed and the necessary data were recorded in a designed checklist. Subsequently, the variables were entered into SPSS software version 26 for analysis

Result:: On average, patients were hospitalized for 7 days, with 31.3% of them having at least one underlying medical condition. In total, 3 patients (6.3%) did not survive, while 40 patients (83.3%) recovered. Based on the conducted assessments, 41.9% of patients had one or more risk factors for thrombosis, with obesity being the most prevalent risk factor (40.5%). Among different methods used to diagnose deep vein thrombosis or pulmonary embolism in patients, Doppler ultrasound was the most common (75.0%), with only one case of positive echocardiography reported. Thrombotic events occurred in 8.5% of patients. In general, patients received anticoagulant drugs for an average of 6 days (an average of 4 days for prophylactic doses and an average of 0 days for therapeutic doses). Various doses of anticoagulants were prescribed for patients, with 4% receiving therapeutic doses, 37% receiving prophylactic doses, and 6% receiving intermediate prophylactic doses. According to the national guidelines

Conclusion:: This study demonstrated that despite the low incidence of thrombotic events, extensive diagnostic methods were employed for patients. The management of patients in this study was highly heterogeneous, and the doses were not tailored to the clinical conditions of the patients. One of the reasons for this was that national protocols for the management and treatment of these patients were not properly followed. These findings emphasize the need for more stringent monitoring in the management of thrombotic events

G-1626

Wound healing feasibility of electrospun nanofibrous scaffold loaded with Achillea wilhelmsii extract intended for skin regeneration

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Introduction:: The human skin serves various vital functions, including protection and temperature regulation. Skin issues, such as wounds and diseases, can have significant consequences. Effective wound management is crucial, and nanofibrous scaffolds are a promising solution. Nanofibers (NFs) have unique characteristics, including high surface area and drug delivery capabilities. Polyvinyl alcohol (PVA) and chitosan (CS) are commonly used in nanofiber production. Achillea wilhelmsii, a herbal medicine rich in therapeutic compounds with antioxidant and antimicrobial properties, can enhance wound healing when incorporated into nanofibers. Localized delivery systems like NFs overcome oral administration limitations. This study evaluated the nanofibrous scaffolds loading A. wilhelmsii extract for improving wound healing skin tissue engineering.

Method & material:: This study examined nanofibrous scaffolds containing 5-15 wt% of A. wilhelmsii extract for skin tissue engineering. The scaffolds, made from PVA and CS, were produced using electrospinning. Various analyses assessed the scaffolds' physicochemical properties, including antioxidant activity and degradation rate. Cell viability and migration of dermal fibroblasts were tested to evaluate their potential for promoting proliferation and wound healing.

Result:: The A. wilhelmsii-loaded scaffolds composed of PVA and CS were fabricated by electrospinning method. Electron micrographs indicated the interconnected fibers with a nano-scale diameter (400 nm) and uniform morphology. Also, the presence of A. wilhelmsii extract in the polymeric matrix of scaffold without any undesirable interaction was approved. The fabricated scaffolds rendered the favorable mechanical properties for skin wound dressing intention, hydrophilic nature, high porosity of the scaffold volume (90%) and water absorption capability
(500%). Besides, the findings showed the preserved radical scavenging ability of A. wilhelmsii extract in the nanofibrous scaffolds and the controlled degradation kinetic over 72 h. The viability assay has proved that the A. wilhelmsii-loaded scaffolds not only have no cytotoxicity but also can accelerate cell proliferation. Moreover, the scaffolds showed significantly accelerated fibroblast migration and complete closure of scratched areas.

Conclusion:: Nanofibrous scaffolds made of PVA/CS with A. wilhelmsii extract enhance wound healing. They exhibit uniform nano-scale fibrous architecture, high porosity, water absorption, hydrophilicity, and mechanical strength. The scaffolds degrade gradually and have strong free-radical scavenging properties. They are compatible with dermal fibroblasts, promoting proliferation. Additionally, these scaffolds accelerate fibroblast migration and complete wound closure, suggesting their potential for efficient wound healing and skin regeneration.

G-1627

Exosome therapy a promising treatment for Triple Negative Breast Cancer

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Introduction:: Cancer is the second leading cause of death in the world. Globally It's realized that the most common type of cancer is Breast cancer which yearly there are 2.26 million people get infected with it and 685000 of them dies. A kind of breast cancer called TNBC is difficult to diagnose due to its absence of 3 types of receptors: estrogen, progesterone and Her2. There are many ways for cancer treatment and One of the newest treatments for cancer is exosome therapy. Exosomes are extracellular vesicles that play an important role in intercellular communication. These vesicles are consisting of two phospholipid layers. LncRNAs, miRNAs, tetraspanins, etc. can be mentioned as exosomes contents. Exosomes are secreted from all living cells of the body and some of them that contain lncRNAs, can affect tumor metastasis, chemo-resistance, Angiogenesis, invasion, and even in preventing tumor progression by regulating expression of certain miRNAs and proteins.

Method & material:: A comprehensive search of the Scopus and PubMed databases was conducted between 2012 and 2023. The search strategy includes keywords related to TNBC , breast cancer" and exosome therapy . Non-English articles, conference abstracts and animal model studies were omitted from the analysis.

Result:: mesenchymal stem cells transfer MiR-106a-5p to TNBC and this process causes the progression of tumor. On the other hand, HAND2-AS1(lncRNA) negatively regulate tumor growth by reducing the level of MiR-106a-5p. there is another lncRNA named MALAT1 (metastasis-associated lung adenocarcinoma transcript 1) that increase the risk of metastasis by lowering the expression of MiR-1-3p. the performance of MiR-1-3p is such that it lowers the formation of VASPs (Vasodilator-stimulated phosphoproteins) and this action helps tumor metastasis. VASPs are some proteins which play a role in the movement and adhesion of cells. Furthermore, the Overexpression of VASPs increase the resistance of BC to Tamoxifen (Growth limiting drug in BC). exosomes-derived lncRNAs like TUG1 and H19 regulate the expression of VASPs and MiR-1-3p. According to the investigations, there are proteins called Rap1 that causes more invasion in BC. These proteins reduce the cell's sensitivity to apoptosis and are regulated by different types of lncRNAs.

Conclusion:: Exosome therapy is used as a modern method to diagnose and treat diseases and Due to the few complications, it has compared to other treatments, it has attracted the attention of many specialists today. A complete understanding of the function of exosome-derived lncRNAs and their applications can be an important step towards the advancement of medical science and the treatment of diseases.

G-1628

Impact of caffeic acid on sperm parameters of mice treated with cisplatin

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Introduction:: Chemotherapy drugs such as cisplatin, despite many clinical applications in cancer treatment, have toxic effects on body tissues, especially the reproductive system. One of the most important side effects of this drug is infertility in men. The aim of this study is to investigate the effect of caffeic acid on sperm parameters of mice treated with cisplatin.

Method & material:: In this experimental study, 24 adult male mice ageing 2 months were randomly divided into four groups (n=6) including: 1) control 2) cisplatin 3) Cisplatin + caffeic acid and 4) caffeic acid. Cisplatin was injected at a dose of 2.5 mg/kg (intraperitoneally) for 5 consecutive days from the 7th and 14th days. Caffeic acid was also injected daily with a dose of 60 mg/kg (intraperitoneally) for 5 weeks from the beginning of the study. One day after the last injection, the mice were anesthetized and the epididymis were removed to evaluate the sperm parameters.

Result:: The results showed that cisplatin significantly reduces the number, motility and viability of sperms and increases abnormal sperms compared to the control group (p0.05). Caffeic acid injection in the treatment group significantly prevented the reduction of sperm viability and motility compared to the cisplatin group (p0.05). Investigations showed that although the number of sperms in the treatment group increased compared to the cisplatin group, this increase was not significant (p0.05). Also, in the group treated with caffeic acid, the percentage of abnormal sperm showed a significant decrease compared to the cisplatin group (p0.05). The comparison between the caffeic acid and the control group did not show significant differences in sperm parameters.

Conclusion:: The results of this research showed that the use of caffeic acid improves sperm parameters and reduces the damage of spermatogenic cells compared to the cisplatin.

G-1629

Application of Internet of Things in healthcare systems: strengths and challenges

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Introduction:: Currently, the Internet of Things is a highly popular technology trend in healthcare that shows promise in improving integrated communication with potential benefits [1]. However, this technology also presents challenges that must be addressed before it can become widely adopted [2]. The present study was conducted with the aim of investigating the use of the Internet of Things in healthcare systems and focusing on its strengths and challenges.

Method & material:: The present systematic review was conducted between 2006 and 2022 by searching PubMed, Scopus, Web of Science, SID, and Magiran databases using specific keywords. The English keywords used were Internet of Things, Internet of Medical Things, Challenge, Limitation, Benefit, and Iran, while the Persian keywords were Internet of Things, Health, Challenges, and Benefits. The inclusion criteria included original research articles that investigated the application of the Internet of Things in healthcare systems in Iran. The title, abstract, and full text of the articles were reviewed by two researchers independently, and finally, the data from related articles were collected.

Result:: Generally, 42 articles were included in the study. One of the most prominent advantages of the Internet of Things in healthcare institutions was the reduction of medical and hospital costs and remote monitoring and service provision (n=13, 30.95%). The high price of the equipment of this technology and the difficulty of its implementation, (n=5,11.90%), legal concerns about using this technology (n=5,11.90%), the novelty of this technology and lack of scientific studies in this regard, and also problems and errors during work (n=5, 11.90%) were reported as the most important challenges facing the Internet of Things in healthcare institutions.

Conclusion:: The use of the Internet of Things (IoT) technology in healthcare is rapidly growing, but it does come with challenges. To overcome these obstacles, managers should establish policies and guidelines to manage and plan for the advancement of this technology. Additionally, as IoT presents new legal cases, more research and new laws are necessary to address these issues.

G-1630

Determinant factors of care burden among caregivers of stroke patients

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Introduction:: Stroke is a chronic condition that has many negative social and economic consequences for patients and their caregivers. In Iran, family members generally play an informal role in caring for stroke survivors. This process can have adverse effects on caregivers' health, which is generally known as caregiver burden. One of the related factors to the care burden can be considered coping strategies in dealing with stressors. One of the most essential coping approaches is religious coping. In the context of the Islamic religion, Islam considered health and illness in a spiritual framework along with a biological and psychological context. In Iran, the dominant religion is Islam. In Islam, there is no distinction between religion and spirituality, and religious thoughts and actions are combined with spirituality. Therefore, collecting information about the relationship between religion and spirituality with other dimensions of life can be useful for any intervention for different individuals

Method & material:: This cross-sectional study was conducted on 129 caregivers of stroke patients by the census sampling method in Shahroud, Iran 2023. Data were collected using the Pargament religious coping scale, Palutzian and Ellison's spiritual health scale, and Zarit's care burden inventory. Inclusion criteria had the minimum ability to work with a smartphone, read and write to complete online questionnaires and caring for a patient with a stroke for at least 6 months. Suffering from severe mental disorders and taking neuroleptic drugs were considered exclusion criteria. Data were analyzed using descriptive and inferential statistics (multivariate linear regression analysis).β

Result:: The average age of caregivers was 41.55±13.23. 60.5 and 77.5% of caregivers reported moderate levels of care burden and spiritual health, respectively. The mean scores of positive and negative religious coping were 19.27±5.41 and 12.15±3.86, respectively. Care burden had a significant and direct relationship with spiritual health (p0.001, β=0.33). Also, variables such as positive religious coping (p=0.036, β=0.63), child (p=0.001, β=29.26), and sisterhood relativity with the patient (p0.001, β=35.93), were recognized as predictors of higher care burden.

Conclusion:: Caregivers generally utilize positive religious coping methods in dealing with stressors, and most of them had moderate levels of spiritual health, which predicted a higher care burden. Therefore, it is recommended to adopt and implement the necessary support measures concerning coping strategies based on religion and spirituality, such as spiritual therapy and interventions based on spirituality. So, it is recommended to strengthen the provision of comprehensive support such as psychological and religious interventions, with the cooperation of support groups consisting of psychiatric nurses, psychiatrists, psychologists, and religious experts.

G-1631

Evaluation of health-promoting lifestyle and its relationship with happiness in nursing and midwifery students of Shahrekord University of Medical Sciences during the crisis of coronavirus (Covid-19) in 1400

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Introduction:: The epidemy of the Covid-19 virus and social distancing, home quarantines and restrictions including the closure of universities could affect various physical and psychological aspects of university students. Also, the corona (Covid-19) virus and the problems estabished by it can lead to a change in the happiness and lifestyle of students. Therefore, the researchers decided to conduct a study with the aim of investigating the health-promoting lifestyle and the happiness state of the nursing and midwifery students in Shahrekord University of Medical Sciences during the Corona Virus (Covid-19) crisis in 1400.

Method & material:: A cross-sectional descriptive study was conducted on 181 nursing and midwifery students using available sampling method in Shahrekord University of Medical Sciences in 2014. After obtaining the code of ethics from the university and the informed consent of the students, the students have filled out valid and reliable demographic information questionnaires, the Oxford standard questionnaire of happiness and health promoting lifestyle of Walker. Data has analyzed by SPSS version 18 software based on descriptive statistics and chi-score, independent T and Pearson correlation tests.

Result:: The results have indicated, 52% of cases were nursing students and 48% of them were midwifery students. There was no significant difference in overall mean of health-promoting lifestyle status of midwifery and nursing students (P=0.66). There was no significant difference between the subscales mean of health promoting lifestyle status (nutrition, exercise, responsibility, stress management, interpersonal support and self-actualization) in the two groups. There was no significant difference between overall mean of happiness of midwifery and nursing students (P=0.6). There was no significant difference between the subscales of the state of happiness (satisfaction with life, level of optimism, feeling of happiness, control over life, feeling of enjoyment of life and level of commitment and adherence) in the two groups. There was a direct correlation between the health-promoting lifestyle and happiness (r=0.671, P0.001), so that it was better happiness based on the higher health-promoting lifestyle.

Conclusion:: The results have indicated, there was no significant difference between the happiness and health promoting lifestyle of midwifery and nursing students.

Also, there was a direct correlation between health-promoting lifestyle and happiness, so that it was better happiness based on the higher health-promoting lifestyle. Therefore, the implementation of educational programs in order to increase the health-promoting lifestyle and happiness of students, especially students of medical sciences, leads to the empowerment and improvement of their scientific and clinical competence, which is important in providing health and treatment services. Finally, the attention of managers and relevant officials to this matter is so important.

G-1632

Examining the Barriers to Health Tourism Development and the Role of Visual Media in Health Tourism

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Introduction:: Health tourism, a burgeoning industry at the intersection of healthcare and tourism, has witnessed exponential growth in recent years that it scrutinizes the influence of visual media in both perpetuating these obstacles and potentially mitigating them. This study explains the pivotal role of visual media in shaping perceptions, informing choices, and influencing the decision-making processes of health tourists.

Method & material:: This study was conducted using relevant keywords in databases such as PubMed, Google Scholar, SID, and IranMedex. The PRISMA checklist was utilized for quality control. Through the review of articles, including titles, abstracts, and full-text readings, articles unrelated to the topic were excluded. As a result, out of the initial 84 articles, 10 articles were subjected to examination

Result:: Although health tourism in Iran possesses significant potential, it faces numerous challenges in this field. Factors such as inadequate coordination between responsible organizations for health tourism, the absence of specialized working committees in the Ministry of Health, Treatment, and Medical Education and the Cultural Heritage, Handicrafts, and Tourism Organization, the lack of a comprehensive data collection system regarding the entry of health tourists into Iran, the inefficiency of the information dissemination system regarding Iran's medical tourism capabilities, the shortage of necessary infrastructure, and legal gaps for the development of this industry have prevented the Iranian health tourism industry from reaching a desirable position. The review of observed studies showed that visual media plays a fundamental role in promoting the health tourism industry by introducing and creating travel incentives for tourists. Proper planning in the enhancement of visual media can contribute to the expansion of the health tourism sector, which in

Conclusion:: In the field of health tourism, Iran faces a treasure trove of challenges, demanding bespoke strategies for its flourishing. Thus, prioritizing the crafting of a meticulous blueprint in this field becomes essential in Iran's health tourism journey. Visual media can emerge as a potent ally, capable of surmounting hurdles, such as the sluggish flow of information about Iran's medical tourism prowess.

G-1633

The Study about Dezful University of Medical Sciences Student ś Academic Failure, from The Perspective of Students in 2021

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Introduction:: Universities in the educational system are considered as efficient and effective manpower training centers. Therefore, every year they accept new students and graduate students who have a special place in this continuous cycle of attention to educational quality. Among these the academic decline of medical university students is of particular importance.

Method & material:: This study was a cross-sectional descriptive analysis study. The statistical population of the study is 1100 students of Dezful University of Medical Sciences in the academic year 2020-2021, 153 of whom were selected by simple random sampling formula in this study to analyze the data collected from each Two descriptive and inferential statistics were used. Descriptive statistics were used for demographic data and other descriptive data in the form of tables, central indicators, and charts. The inferential statistics section including Pearson correlation and simple regression was analyzed by Spss24 software.

Result:: From 153 people, 63.4% of the respondents were 20 to 23 years old and 36.6% were 23 to 26 years old. Also 26.3% of the respondents were married and 73.9% were single and 56.6% of the respondents were girls and 48.4% were boys. Educational factors including semester, grade point average, field of study, course level, diploma grade point average, pre-university grade point average and admission quota have had a positive and significant effect on students' academic failure. Also, individual factors including age and sex of academic achievement had a significant effect. Social factors including employment status and housing status also had a significant effect on academic failure and demographic factors including marital status had a significant effect on academic failure

Conclusion:: Educational factors, social factors, individual factors and demographic factors are related to academic failure in Dezful University of Medical Sciences from the perspective of students in2021.

G-1634

Investigation of the exonic splicing mutation effect in the PTPRQ gene in an Iranian family with hearing loss.

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Introduction:: Non-syndromic hearing loss (NSHL) occurs in 1 out of 500 newborns and accounts for nearly 70% of hereditary hearing loss (HL) cases, approximately 80% of which have an autosomal recessive mode of inheritance. PTPRQ is a Known HL gene that encodes protein tyrosine phosphatase, Receptor Type Q and plays an important role in the maturation and function of stereocilia in the inner ear. PTPRQ mutations are mostly associated with Deafness, autosomal recessive 84A; DFNB84A (MIM: 613391). This study aimed to investigate the effect of exonic splicing mutation in the PTPRQ gene, in an Iranian family with HL.

Method & material:: Using whole-exome sequencing (WES), we analyzed two affected siblings born to a consanguineous family presenting with hereditary sensorineural NSHL; who were verified to be negative for GJB2 mutations.

Result:: We identified a homozygous exonic splicing mutation, c.6024 GA (NM_001145026), in PTPRQ.

Conclusion:: PTPRQ encodes a member of the type III receptor-like protein tyrosine phosphatase family, which is necessary for maintaining the stereocilia structure. The missense variant, c.6024 GA, can disturb the normal splicing processes due to the broken wild-type donor site at the end of exon 34 (SpliceAI:0.78, HSF: 85.1375.04 (-11.85%), MaxEnt: 9.225 (-45.77%)) and may lead to the production of abnormal PTPRQ protein and malfunction of hair cells. Our study highlights the importance of exonic splicing mutations in genes that play key roles in the inner ear, which can lead to HL as a significant medical and social burden.

G-1637

Relationship Between Ki-67 And Breast Cancer: A Historical Cohort Study

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Introduction:: According to past studies and the importance of Ki-67 in breast cancer, a clear cut-off point for prognosis and prediction of recurrence has not yet been determined; Therefore, the purpose of this study is to investigate the level of Ki-67 in breast cancer patients and its relationship with other laboratory markers and clinical findings, and finally its relationship with patient survival.

Method & material:: Patient information was extracted from their medical records. patients in stages II and III who underwent a mastectomy, chemotherapy, radiation, and hormone therapy were included in the study, and patients with incomplete information were excluded. According to the Ki-67 level, patients were divided into three groups (Ki-6715%, Ki-67 15-25%, and Ki-6725%) and followed up for 36 months. laboratory information and follow-up process of the disease, local recurrence, distant metastasis, and death were examined. P-value ≤ 0.05 was considered significant.

Result:: According to the inclusion and exclusion criteria, 500 patients were included in the study. Ki-67 level had a significant relationship with disease stage (p=0.037), tumor size (p=0.006), estrogen (p0.001), and progesterone (p0.001) receptors, HER2 (p0.001) and molecular subgroups (p0.001), as well as with disease-free interval (DFI) (p0.001), but it had no significant relationship with patients' age, lymph nodes, and overall survival. In examining the relationship between Ki-67 level and disease-free interval in each molecular subgroup, there was a significant relationship only in luminal A (p=0.003) and luminal B (p=0.004) subgroups, and it was not significant in HER2-enrich and triple-negative subgroups.

Conclusion:: Ki-67 can be useful in predicting recurrence, especially in patients in luminal A and luminal B molecular subgroups.

G-1638

Investigating the Work Ethic of the Staff of Comprehensive Health Service Centers in Dezful , 2021

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Introduction:: One of the vital requirements for current organizations is that the activities of that organization be performed in the light of professional ethics. Ethics is a subject that has never been and will never be forgotten in the dictionary of individual and social life. Paying attention to ethics and moral principles that have been developed in each society according to the type of culture of that society is one of the factors of society's success. Therefore, the present study was conducted with the aim of determining the work ethic status of the staff of comprehensive health service centers in Dezful in 2021.

Method & material:: The present study was a descriptive-analytical cross-sectional study that was conducted in 1399. The statistical population included all employees of comprehensive health service centers affiliated to Dezful University of Medical Sciences in 2021 and amounted to 436 people. The sample was selected by census that after removing the items that were considered as exclusion criteria, 304 people were included in the study. Data were analyzed using SPSS software version 24 and descriptive and inferential statistics (T-test and ONEWAY ANOVA).

Result:: The average work ethic of the staff of comprehensive health service centers in Dezful was 59.45 7 7.20, which according to the instructions of the questionnaire (average 46), so the average work ethic of employees was higher than average. There was no significant relationship between the mean of professional ethics and all its areas with job position, marital status, level of education and employment status (P 0.05). There was no significant relationship between the mean of professional ethics and some of its areas with gender, age, work experience (P 0.05). There was a significant relationship between the mean range of perseverance in work with gender (P 0.05) so that in women there was more perseverance in work than men. There was a significant relationship between the mean of professional ethics and the field of interest in work with age and work experience (P 0.05) .

Conclusion:: The results of the present study In line with many previous studies, in addition to accepting the socio-cultural effects on employee work ethic, confirm the role of individual characteristics such as age, work experience and gender in the level of work ethic and its various dimensions. However, no relationship was found between work ethic and job position, level of education, marital status and type of employment in the workplace. The results also showed that the work ethic of employees was above average. The findings of this study can help relevant officials to make decisions related to hiring a qualified workforce and also to adopt special policies to improve work ethic in the workplace and administration.

G-1639

Factors associated with the critical thinking ability among nursing students: An exploratory study in Iran

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Introduction:: Critical thinking is recognized as a fundamental skill in the field of nursing, which nursing students should utilize in their work environment. Critical thinking involves analyzing, evaluating, and interpreting information and is used in a wide range of topics such as disease diagnosis, treatment planning and implementation, monitoring and evaluating outcomes, problem-solving, and decision-making in emergency situations. This study was conducted with the aim of determining the level of critical thinking skills among nursing students at Ardabil University of Medical Sciences.

Method & material:: This study is a cross-sectional analytical research conducted in accordance with the STROBE guidelines in Ardabil province (northwest Iran). Data collection was carried out using convenience sampling at the nursing faculties of three medical universities in Ardabil, Meshgin, and Germi. A sample of 246 nursing students participated in the study. The demographic information form and the Critical Thinking in Clinical Practice (N-CT-4 Practice) questionnaire were used to collect data. Descriptive statistics and inferential tests, including Pearson correlation coefficient, independent t-test, one-way analysis of variance, and multiple linear regression, were used for data analysis. The data were analyzed using SPSS version 22.0 software.

Result:: The study results showed that the overall average score of critical thinking in clinical nursing students was 313.87 ± 25.80 (range = 109-436). Based on this, the majority of students reported a low level (63%) or moderate level (37%) of critical thinking in clinical practice. The highest and lowest mean scores among dimensions were related to the Intellectual and cognitive dimension (127.99 ± 13.30) and the Technical dimension (17.25 ± 3.43), respectively. Multiple linear regression analysis revealed that the semester (B = 131.34, p 0.001) and type of faculty (B = 124.39, p 0.001) were predictors of critical thinking in the clinical environment among nursing students. Overall, predictors accounted for 19.3% of the total variance in predicting critical thinking in the clinical environment (F = 9.396, p 0.001).

Conclusion:: The study results showed that nursing students could have better performance in critical thinking abilities. This study suggests that nursing education programs should prioritize teaching critical thinking skills in clinical environments, as it is an essential topic in nursing education. With significant changes in clinical nursing environments, strengthening clinical critical thinking can improve the clinical performance of nursing students. Therefore, one of the important learning objectives in clinical nursing courses is to develop clinical critical thinking skills for nursing students.

G-1640

Virtual Reality for Rehabilitation in COPD Patients: Systematic Review and Meta-analysis of Randomized Controlled Trials

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Introduction:: Chronic obstructive pulmonary disease (COPD) is a chronic respiratory disease that causes breathlessness, reduced exercise capacity, and poor health-related quality of life. For patients with COPD, a key element of comprehensive care for them is pulmonary rehabilitation (PR), which usually includes exercise training as a remarkable component. A virtual reality (VR) technology is an innovative rehabilitation tool that could have certain advantages over traditional physiotherapy techniques. Randomized controlled trials (RCTs) that employed VR-based rehabilitation for COPD patients are the focus of this systematic review and meta-analysis, which sought to compare the findings.

Method & material:: This study followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The following databases and registers were searched in May 2023: Pubmed, Scopus, Web of Science, Embase, WHO ICTRP, and ClinicalTrials.gov. Keywords included "Virtual reality", "active video", "interactive video", "rehabilitation game", "Nintendo Wii", "PlayStation", "Xbox", "Kinect", and "Chronic Obstructive Pulmonary Disease" along with MeSH synonyms and operators suitable for each search engine. The inclusion criteria were RCT articles and the Joanna Briggs Institute (JBI) Critical Appraisal Checklist was used to evaluate the quality of the articles. Screening and data extraction were conducted by two authors independently and any discrepancies were resolved by consensus involving a third author. Data were analyzed using Comprehensive Meta-Analysis (CMA) v.3 software.

Result:: A total of 892 results were found. After removing duplicates, 625 remained. Finally, 8 RCTs with 412 patients who had stable COPD were included after screening, checking full-text availability, and appraising. The interventions lasted between 2 and 12 weeks. Most trials observed the Six-minute Walking Test (6MWT), Forced Expiratory Volume for 1 second (FEV1), Dyspnea (MRC and BORG scale), Baseline Dyspnea Index (BDI), Transitional Dyspnea Index (TDI), and quality of life (SGRQ). A meta-analysis of the 6MWT, FEV1, and SGRQ variables was conducted. Six results showed that VR intervention has significant improvements but is not noteworthy, while two papers offered no extra benefits compared to a standard exercise program.

Conclusion:: The meta-analyses showed that virtual rehabilitation training for COPD patients appeared to be realistic and feasible, but it was not superior to a well-executed standard exercise training program for COPD patients. There was less evidence for comparing VR with passive control interventions. More high-quality and large-scale studies are required to verify and expand these results.

G-1641

Curcumin plays a protective role against oxidative damage in brain tissue of rat during chronic exposure to chlorpyrifos

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Introduction:: Chlorpyrifos (CPF) is an organophosphate pesticide (OPP) commonly used to control various insect pests. The primary mechanism of CPF neurotoxicity is the inhibition of acetylcholinesterase (AChE) activity and oxidative stress in biological systems [1].

Curcuma longa belongs to the Zingiberaceae family and its rhizomes contain turmeric. Curcumin is the active ingredient in turmeric and has been used as a potential therapeutic and anti-inflammatory agent, due to its safety, high efficacy, and multiple activity effects. Curcumin has been shown to protect against OPP by modulating oxidative stress. Curcumin can cross the blood-brain barrier in experimental models and thereby exert its therapeutic effects [2].

The aim is to investigate the protective effect of curcumin on oxidative stress indices in the brain tissue of male rats exposed to repeated chronic doses of CPF.

Method & material:: Male Wistar rats (n=40) of approximately 250 g were randomly allocated into 5 groups (n=8).

This study is approved by the Ethical Committee of Birjand University of Medical Sciences (number: IR.BUMS.REC.1400.219). Data was analyzed with "InStat 3.0 software" and shown as mean standard error (SEM ± Mean). The normality of data was determined with the Shapirville test. After confirmation of normality, statistical comparisons of data were performed by analysis of variance (ANOVA) and post hoc Tukey's test. P 0.05 was considered a statistically significant

Result:: Significant difference between the data of the C group vs. other groups: *; p < 0.05,**; p < 0.01. Significant difference between the data of the CPF group vs. other treatment groups: +; p < 0.05. Significant difference between the data of the CPF+CUR25 group vs. other treatment groups: #; p < 0.05.

Conclusion:: We posited that boosting the brain's antioxidant content and maintaining of optimal redox state may alleviate CPF-induced neurotoxicity. The study showed that the administration of CPF caused significant changes in the levels of GSH, NO and MDA in the brain tissue of rats, and curcumin (100 mg/kg) returned their levels to normal levels. Over generation of reactive oxygen species (ROS) by cytochrome P450s during the metabolism of OPPs as well as OPPs disrupts natural antioxidant homeostasis leading to depletion of antioxidant content. ROS are also generated in the liver during OPP toxicity due to high energy consumption along with inhibition of oxidative phosphorylation and induction of glycogenolysis [3]. ROS are unstable and highly reactive particles that attack lipids, proteins, and nucleic acid. Its Damage is neutralized through the enzymatic system SOD, CAT, GPx, and GR and non-enzymatic system GSH and vitamins [4]. In sum, chronic exposure to CPF induced oxidative

G-1642

Evaluation of health care professionals readiness for accepting Electronic health records in educational and private hospital of Yazd in 2023

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Introduction: The electronic health record (EHR) is a comprehensive system of medical information about human life that is accessible to authorized people. Its purpose is to integrate, improve efficiency, and improve healthcare quality. Based on this, for the success of its implementation, the evaluation of the readiness of human resources should be put on the agenda before implementation. Therefore, this research aims to evaluate the readiness of healthcare providers of educational hospitals in Yazd city to accept electronic health records in 2023.

Method & material: The type of the current study, conducted in 2023, is descriptive. The research population was all physicians, nurses, radiologists, and personnel of the health information management unit, who were selected as a sample using a stratified sampling method. The data was collected through a standard questionnaire including five sections (demographics, computer skills, knowledge of general concepts of EHR, attitude towards EHR, and factors influencing the level of readiness to accept EHR). Finally, data analysis was done by SPSS software, using descriptive statistical methods.

Result: In general, the level of computer skills was 18.84 out of 35, the level of awareness was 5.7 out of 14, and the positive attitude of people towards this technology was 52.8 out of 70 points. The mean overall readiness of healthcare providers to accept electronic health records was 77.34 out of 119.

Conclusion: In health management systems, information has a special role in planning, evaluation, training, legal aspects, and research, in which the use of EHR can be very effective. However, the most important point in the successful implementation of EHR is the readiness of the personnel present in healthcare units to accept this technology, It seems that in the educational hospitals of Yazd city, the relevant personnel are not sufficiently prepared in this field. Therefore, managers should plan to improve this situation.

G-1643

The association between inflammation and depression in the MASHAD Cohort study

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Introduction:: The most common psychiatric illness, in the 21st century, is depression. Inflammation and depression both are related to general health. The role of inflammation in depression has been of growing interest over the past two decades and it is now thought to play a role in the pathogenesis of depression. Therefore, in this study we investigate the relationship between inflammation and depression.

Method & material:: After 10 years follow-up, from 9704 healthy participants in MASHAD cohort study at baseline, 7561 completed the study. Inflammation markers such as WBC, platelets, RDW, Plt/HDL, Neut/HDL, SII, Lym/HDL, neu/lym, Plt/lym, RDW/lym, RPR (RDW/Plt), hs.CRP were measured at baseline and we assessed the association of them with incidence of depression after 10 years follow-up.

Result:: The result of this study showed that there were significant differences between RLR, RPR, PLR, platelets and hsCRP and depression severity (p value0.05). Moreover, increase one unit in NHR can increase chance of moderate depression by 4.6%.

Conclusion:: The results of this study demonstrated increasing of neutrophil count has occurred following infection and inflammation and decrease in serum HDL level as a marker of lipid profile can be susceptible individuals to development of depression.

G-1644

Identification of Thalassemia δβ° and Hb D in premarital screening: Cases report

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Introduction:: Thalassemia δβ° is a rare variant of thalassemia with raised Hb F and Hb D is an uncommon structural hemoglobin variant. We report here a 29-year-old male and 25-year-old female with thalassemia δβ° and Hb D that identificated in premarital screening.

Method & material:: .....

Result:: A 29-year-old male and a 25-year-old female as screening premaritally for betathalassemia presented to Khalilabad city health center. The couple were asymptomatic and significant results were observed in CBC test and Hb electrophoresis. Male CBC revealed an RBC:6.51×109/L, Hb:15.1 g/dL, HCT:45.1%, MCV:69.3fl, MCH:23.2pg, MCHC:33.5% and RDW-CV:19.4%/; his Hb electrophoresis showed HbF:16.9%, HbA:80.6% and HbA2: 2.5%. In female CBC revealed an RBC:4.71*109/L, Hb:21.5 g/dL, HCT:37.8%, MCV:80.3fl, MCH:26.5pg, MCHC: 33.1% and RDW-CV:16.5%; her Hb electrophoresis showed HbA:58.1%, HbA2:3.1%, HbD:38.8% and HbF0.1%. In addition, the PBS of male revealed anisopoikilocytosis with hypochromic microcytic red cells, codocytes, dacrocytes and polychromasia. Also in the PBS female patient were seen elliptocytes, ovalocytes, codocytes, burr cells. A final diagnosis of heterozygous thalassemia δβ° (man) and hemoglobinopathy D (woman) were rendered for the first in Kashmar city.

Conclusion:: Our case reports to highlight the necessity of premarital screening, and will help to understand the various biochemical and hematological parameters aiding the hematologists and the clinician to identification of Hb disorders. Other misdiagnosis hemoglobinopathy screening programs can have potentially adverse consequences in the premarital screening, especially in areas where familial marid common.

G-1648

Assessing how wild Newcastle disease virus slows down cell growth and causes cell death in A549 cells

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Introduction:: One of the new methods for treating cancer is to use oncolytic viruses. Viruses mainly work by causing cells to die, known as cellular apoptosis. This happens through pathways both inside and outside the cell. The purpose of this study was to see how a specific virus affects the production of a certain enzyme and causes cell death in a specific type of cells.
Method & material:: This study was done in a lab using cell cultures. So, after we grew the A549 cell line, we exposed it to different amounts of a specific kind of Newcastle disease virus. Next, the virus's ability to kill cancer cells was tested using different methods including cell proliferation tests, measuring production of reactive oxygen species (ROS), release of the enzyme LDH, measuring survival rates, and measuring levels of certain proteins (caspase 8 and 9) that are involved in a process called apoptosis. In every test, a p-value less than 0. 05 was considered as a significant level.
Result:: The study found that the normal Newcastle disease virus caused a big decrease in cells growing, made more cells die, produced more harmful reactive oxygen species, and released more enzymes compared to the group without the virus. In simpler words: The study looked at how a type of virus affected certain cells. It found that the virus increased the activity of caspase-9, but did not have a significant effect on caspase-8.
Conclusion:: The findings from this study suggest that wild-type Newcastle disease virus could be a good option for treating lung cancer.

G-1649

Prevalence of cardiovascular risk factors among myocardial infarction patients receiving reteplase

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Introduction:: Myocardial infarction (MI) is one of the leading causes of disability and mortality in the world. The impact of risk factors such as sex, age, and addiction on prognosis is still debated. More than 50% of MI cases occur in people less than 65 years old. Therefore, this study was conducted to investigate the prevalence of myocardial risk factors in patients with myocardial infarction receiving reteplase. hospitalized in CCU.

Method & material:: The current retrospective cross-sectional research was performed from 2017 to 2019, on patients with myocardial infarction, receiving reteplase, admitted to the CCU of Imam Khomeini Hospital in Jiroft city in southern Iran. 278 patients were selected by convenience sampling method. Data were extracted from the patient's medical records. Descriptive statistical analyzes were performed. (Ethics Code: IR.JMU.REC.1399.047)

Result:: We identified 278 patients with myocardial infarction, receiving reteplase admitted to the CCU of Imam Khomeini Hospital in Jiroft city. the prevalence rates of risk factors in patients were as follows: 194 (69.8%) were males, and 84 (30.2%) were females. Most patients are aged between 40 and 65 years. 94 (34.5%) of the patients had a family history of CVDs, 143(51.5%) had diabetes, 150(53.9%) had hypertension, 163(58.6%) had a history of addiction, 75(27%) had a history of coronary artery disease, 7(2.5%) had a history of CABG and 86(31%) had lipid disorders.

Conclusion:: our findings indicate a high Prevalence of cardiovascular risk factors among myocardial infarction patients receiving reteplase. Programs to target risk factors including addiction, diabetes, hypertension, and sociodemographic risk factors, are necessary for more effectively addressing health disparities in MI and its adverse consequences

G-1650

Study the world's Highly-Cited Papers in the field of artificial intelligence and cancer: Scientometric and content analysis

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Introduction: Cancer is one of the most common diseases and early diagnosis and treatment of it can significantly increase the chance of recovery. In this regard in recent years, artificial intelligence has received increasing attention for many purposes, including the diagnosis and discovery of diseases. Examining and evaluating the scientific outputs of researchers in this field can play an important role in providing a broad and comprehensive view of current effective research activities.

Method & material: In this research, scientometric and topic analysis of the content of highly-cited papers in the field of artificial intelligence and cancer have been investigated. 1734 articles indexed until May 15, 2023, in the Web of Science database, extraction and scientometric analysis were performed using VOS viewer 1.6.15 and bibliometrix R-package 4.1.1. In the next step, the articles were subject to topic analysis by 4 researchers. Effective and highly cited articles, authors, organizations and productive countries of the world, journals that publish these types of articles and their characteristics, topic trends, networks of both co-authorship and co-occurrence and various approaches to artificial intelligence and cancers carried out in this field, identifying and were illustrated.

Result: : The scientometric results of this research showed that the countries of China (1202), America (1073) and India (431), respectively, contributed the most to the production of Highly- Cited Papers HCP. USA with 16521 citations followed by China and Canada have the most citations. Also, China's Sichuan University has had the most scientific output in this field. IEEE Access (54 articles) and Cancers (41 articles) have also published the most HCP articles. In addition, the article by Dinggang Shen and his colleagues from the University of North Carolina entitled "Deep Learning in Medical Image Analysis" has the most citations (1979 citations). Topic analysis of these articles also showed that in the field of artificial intelligence, the most common approach of these articles was machine learning and neural networks, and most studies focused on breast, lung and brain cancers.

Conclusion: Considering the importance and various applications of artificial intelligence, including in the diagnosis and treatment of cancer, numerous and effective researches have been conducted in this field. Periodic review and analysis of these studies can provide a better direction for future research and efforts of researchers and examining the current research situation can also clarify the future direction of research and the strengths and information gaps.

G-1652

Evaluation of the Impact of Covid-19 On Male Reproductive System and Spermatogenesis: A Systematic Review

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Introduction:: The novel coronavirus disease (COVID-19) pandemic, which emerged as a global health threat in December 2019 and presented a greater risk to men than women, It may affect male fertility in several ways. It has been shown that the receptor of angiotensin-converting enzyme 2, which has a high affinity with SARS-CoV-2, is found in high levels in testicular cells, and the immune response caused by COVID-19 can lead to disruption of the testicular spermatogenesis system and decrease sperm count. Therefore, in this review, we decided to conduct a systematic review to investigate the impact of covid-19 on male reproductive system and spermatogenesis.

Method & material:: The present study is a review study that reviewed the sources in the scientific platforms PUBMED and SCIENCE DIRECT in the period from 2020 to APRIL 2023 with the keywords SPERMATOGENESIS, COVID-19, SARS-COV-2. Inclusion criteria include review of cross-sectional studies and Case Repots studies of full text articles. Exclusion criteria in this study are RCT and cohort studies

Result:: In this period of time, 73 related articles were found with the above keywords, which after secondary and detailed review, and according to the inclusion and exclusion criteria 19 related articles were reviewed. Among 19 articles, 17 articles stated the negative impact of COVID-19 on sperm production and sperm quality, and in two articles, it was stated that COVID-19 has no effect on the quality and number of sperm.

Conclusion:: According to the investigations, most of the study results show that covid-19 can have a negative effect on the male reproductive system and cause a decrease in the production, number and quality of sperm. Therefore, reducing fertility in patients with a history of covid-19 should be considered.

G-1653

Investigating the Relationship between Serum Selenium Levels and Pregnancy Outcomes and Bacteriuria in Pregnant Women

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Introduction:: Recent studies have reported that antioxidant status, including serum selenium concentrations, is altered in women who develop preeclampsia. We aimed to examine the relationship between selenium levels and pregnancy outcomes and the incidence of bacteriuria
in pregnant women

Method & material:: In this cross-sectional study a total of 56 pregnant women, who were in the first trimester of pregnancy, were included, and patients with a history of Kidney stones, abnormalities of the genitourinary system, malnutrition, taking oral supplements before pregnancy
were excluded from the study. The incidence of preeclampsia, serum selenium concentrations, anemia, bacteriuria and presence of urinary infection, and other characteristics of women were evaluated. Data analysis was done using the statistical package for social sciences (SPSS) version
20.0. The P-value of 0.05 was considered to be statistically significant.

Result:: The mean serum selenium level in patients with bacteriuria (89.34± 19.12 mg/dl) was significantly (P-value=0.01) lower than patients without bacteriuria (102.05± 17.97 mg/dl). Also, the mean serum selenium level in patients with positive urine culture (88.81±19.54 mg/dl) was significantly lower than patients with negative urine culture (99.71±18.63 mg/dl). However, in terms of other variables such as anemia, pre-eclampsia, gravidity, LBW and labor type the serum selenium level was not significantly different (P0.05).

Conclusion:: Serum selenium levels of patients with bacteriuria were significantly lower compared to patients without bacteriuria and selenium deficiency occurred significantly more among pregnant women with urinary tract infections compared to the healthy ones. Selenium level
dynamics in pregnancy possibly could play a role in the incidence of infections such as urinary tract infections among pregnant women.

G-1656

Prognostic Role of Neutrophil–to–Lymphocyte Ratio in Cardiovascular Disease: A Systematic Review

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Introduction:: nowadays, cardiovascular diseases are the most common cause of death and account for one third of all deaths in the world. Atherosclerosis is a chronic cardiovascular disease that threatens human health and several factors including genetic and environmental factors such as high cholesterol, high blood pressure, diabetes and smoking are involved in its pathogenesis. However, it is generally believed that atherosclerosis is a chronic inflammation of the arteries initiated by the interactions of these risk factors and the cells of the arterial wall. White blood cells and their subsets are inflammatory markers in cardiovascular events. It has been shown that the increase in neutrophil to lymphocyte ratio (NLR) plays an important role in this inflammatory process and can predict cardiovascular events. Therefore, we decided to conduct a systematic review study to investigate the effect of the ratio of neutrophils to lymphocytes in the prognosis of cardiovascular diseases.

Method & material:: The present study is a review study that reviewed the sources in the PUBMED and SCIENCEDIRECT databases in the period of 2020-2023 with the keywords, neutrophil to lymphocyte ratio, cardiovascular disease, MI, ACS. Inclusion criteria include systematic review and cross-sectional studies published in 2020-2023, and RCT studies were excluded from the study.

Result:: In this period of time, 73 articles were found with the above keywords, and 30 related articles were reviewed according to the inclusion and exclusion criteria. 28 studies emphasized the influence of neutrophil to lymphocyte ratio in the prognosis of cardiovascular disease, but in two studies it was stated that NLR does not predict the risk of cardiovascular disease.

Conclusion:: According to the investigations, it was shown in most of the studies that the neutrophil to lymphocyte ratio (NLR), which is available and low-cost compared to other inflammatory markers, is a suitable measure to predict the inflammatory process in cardiovascular events.

G-1657

Factors Affecting Prostate Cancer Screening in Men Over 50 Years Old Visiting Comprehensive Health Centers in Saveh County: Application of the Health Belief Model

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Introduction:: Introduction : One of the most common malignant cancers that puts men, especially those over 50 years of age, at risk is prostate cancer. One way to prevent this disease is to promote health care, raise awareness, and change people's beliefs and attitudes about getting prostate cancer screening tests on time. Identifying beliefs and changing behavior in health programs is done using behavior change models such as the Health Belief Model, which is used in the design of health interventions. This study also aimed to investigate beliefs associated with prostate cancer screening behavior in men over 50 years of age using the Health Belief Model

Method & material:: Methods: In this cross-sectional descriptive study, 433 men over 50 years of age visiting comprehensive health centers were selected by a random cluster sampling method. The data collection tool included demographic characteristics plus the awareness and beliefs of the selected sample based on the constructs of the Health Belief Model (severity, sensitivity, self-efficacy, perceived benefits and barriers, and cues to action) and prostate cancer screening behavior. The reliability of the present tool was 0.86. The data were analyzed by spss v16

Result:: Results: The average age of the participants was 57.26 years. The average awareness of men about prostate cancer was 24.83. Based on the t-test, men in the two groups of those who had undergone screening and those who had not undergone screening were compared in terms of the constructs of the Health Belief Model, and the difference between the two groups was found to be significant in all constructs (P 0.05). Based on the logistic regression performed, the constructs of the Health Belief Model were able to explain 59% of the screening behavior of men over 50 years of age.

Conclusion:: Conclusion: Increasing awareness and identifying and intervening on beliefs related to men's screening behavior is not only essential for facilitating the design of appropriate interventions in this area, but also reduces mortality from this disease. Health programs based on theory that make the target group more sensitive to the health issue in question, understand how to reduce perceived barriers and the benefits of undergoing screening, and also emphasize the use of reminders, will lead to greater acceptance and performance of this behavior in the target population

G-1658

Comparison of Sealing Ability of MTA and Cold Ceramic by Using Dye Penetration Method; an In-Vitro Experimental Study

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Introduction:: The ideal aim of root canal treatment is to completely remove microorganisms and diseased tissue inside the root canal and seal the root canal space with an impermeable material in order to prevent reinfection of preapical tissues. Various filling materials such as gutta percha, sealers, bio-ceramics etc. are used to fill the root canal. The purpose of this study is to compare the amount of micro leakage in canals filled with MTA, Cold ceramic and gutta-percha with AH26 sealer using dye penetration method.

Method & material:: This experimental study was conducted on 64 human single-root extracted teeth were collected by convenience sampling from a dental clinic in Yazd, Iran. the study was approved the ethics committee of Shahid Sadoughi University of Medical Sciences (Code: IR.SSU.DENTISITRY.REC.1401.035). Teeth were decoronated until 13 mm of roots remained. Then, they were prepared with step back technique. Samples were randomly divided into 5 groups. In group A 18 teeth were filled with MTA, in group B 18 teeth were filled with cold ceramic, and in group C 18 teeth were filled with gutta-percha AH26 sealer (Densply, Detrey, Germany). Also, positive and negative control groups were considered (five teeth for everyone). A dye penetration model utilizing Methylene blue 2.5% was used for evaluation of the sealing ability. All samples were placed completely into the dye solution for 96h and rinsed with water for 1h. Using diamond bur teeth were sectioned parallel to

Result:: Average dye penetration for group A, group B, and group C (AH26 with gutta-percha) were 1.19, 0.94, and 2.33mm, respectively. Average dye penetration of the Control A and B were 6.5mm and 0.2mm, respectively. There were no significant differences in sealing ability between MTA and AH26 or Cold ceramic (P= 0.08 and 0.88); but group C showed significantly higher microleakage in comparison Cold ceramic (p value= 0.02).

Conclusion:: Sealing ability of MTA and cold ceramic was similar as root filling materials; although Sealing ability of cold ceramic was better than canals filled with AH26 and gutta-percha.

G-1659

Vegetarian and Vegan Diets and the Risk of Cardiovascular Disease: A Systematic Review

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Introduction:: nowadays, cardiovascular diseases account for one third of all deaths in the world, which are modifiable by factors such as smoking, physical activity, eating habits, blood pressure, diabetes, and obesity. Vegetarian diets are associated with a lower risk of cardiovascular disease and improved risk factors. Therefore, we decided to conduct a systematic review to determine the relationship between a vegetarian diet and the risk of death from cardiovascular diseases.

Method & material:: The present study is a review study that reviewed the sources in the PUBMED scientific database in the period of 2022-2023 with the keywords vegetarian, plan-based diet, cardiovascular disease, MI, ACS. Inclusion criteria include review and cross-sectional studies published in 2022-2023 and RCT studies were excluded from the study.

Result:: In this period of time, 19 articles were found with the above keywords, and 16 articles were reviewed according to the inclusion and exclusion criteria. 15 studies emphasized the positive relationship between diet and the reduction of cardiovascular disease, but in one study, no relationship was found between the consumption of a plant-based diet and cardiovascular disease.

Conclusion:: Considering the effect of the vegetarian diet, which is an accessible and low-cost way to modify the diet and lifestyle, it can be recommended to reduce cardiovascular diseases to those who are at higher risk of these diseases. It is suggested to design and implement cohort studies with a large sample size in the future to investigate this relationship more precisely.

G-1660

invasive ventilation and laser–assisted unilateral posterior cordotomy as novel multidisciplinary approaches to Charcot–Marie–Tooth disease 4B vocal cord paralysis: a case report

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Introduction:: Charcot-Marie-Tooth disease (CMT) is the most common inherited neuropathy. The disease is generally characterized by sensory loss most prominent in distal extremities, muscle weakness, and muscle wasting. There is still no effective therapy for CMT. Here, we present a case of a 6-year-old patient with Charcot-Marie-Tooth Disease Type 4B presenting with vocal paralysis who was initially treated with non-invasive ventilation (NIV) and after a year, electively undergone cordotomy as a novel therapeutic approach.

Method & material:: A 6-year-old girl was brought to the emergency room, presenting with hoarseness and stridor, which was initially diagnosed as croup and was treated accordingly. Because of not responding to the treatment, vocal cord pathology was suspected. Bronchoscopy was performed which revealed vocal cord paralysis. Genetic testing and nerve conduction study confirmed Charcot Marie Tooth type 4B. The patient was a candidate for tracheostomy. Since parents didn't have consent for the operation, non-invasive ventilation (NIV) was used as a novel therapeutic approach. NIV was well tolerated for a year during which there were fewer hospital readmissions. After a year, laser-assisted unilateral posterior cordotomy was performed which resulted in improved respiratory function without serious complaints regarding aspiration.

Result:: .

Conclusion:: We conclude that NIV treatment can help hereditary neuropathies patients with vocal cord paralysis at least for a limited period and Unilateral posterior cordotomy can be considered to safely improve respiratory function while avoiding tracheotomy.

G-1661

Insulin– mimetic Features of Myo–inositol in the Treatment of NAFLD

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Introduction:: Insulin resistance (IR), is considered as a prominent underlying pathophysiological mechanism responsible for the progression of non- alcoholic fatty liver disease (NAFLD). Impairments in pyruvate dehydrogenase kinases-1 (PDK1) in insulin signaling pathway, aggravates hepatic IR and leads to the progression of NAFLD. Recently, myo-inositol (Myo) is considered as an organic osmolyte with a plethora of pharmacological properties in the management of IR-related conditions. The present trial, aimed to examine the effects of Myo supplementation on the mRNA expression levels of PDK gene and fasting insulin resistance index (FIRI) in patients with NAFLD.

Method & material:: The current double-blinded placebo-controlled randomized clinical trial, investigated the effects of Myo (two 2g sachets per day) compared with maltodextrin as placebo (two 2g sachets per day) on 30 patients with NAFLD. At baseline and after 8 weeks, RNA was extracted from peripheral blood mononuclear cells (PBMCs) and the mRNA expression levels of PDK1 and β-actin (as reference gene) were assessed using reverse transcription quantitative real- time polymerase chain reaction (RT-qPCR) via Bio-Rad IQ5 system. Fold change was calculated using 2-ΔΔCT equation. Moreover, FIRI was estimated based on fasting glucose and insulin levels at baseline and end of the study. The proposal of this study was approved by TBZMED. REC.1400.567 and IRCT20100209003320N22 .

Result:: Despite the increase in the fold change of PDK1 in both groups compared with their steady-state levels, Myo group showed greater increases (two times higher) in fold change of PDK1, in comparison to the placebo group after adjusting for the confounders (p=0.029). Indeed, FIRI index reduced significantly in Myo group compared with the placebo group (p=0.043).

Conclusion:: In conclusion, our results demonstrate that Myo supplementation could significantly improve IR by exerting insulin- mimetic features and regulating insulin signaling pathway in patients with NAFLD.

G-1662

distortion of uncorrected myopic vision among similar phenomena

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Introduction:: It was noted by several myopic subjects that straight wires crossing curved objects appear as rounded when looking out through windows protected with fine wire mesh. Myopic vision in this setting was simulated with a camera focused before a dark mesh, imaging a pattern of bright concentric circles with a dark background. The camera could objectively image the reported phenomenon. But this may be flawed by the pincushion distortion since this type of radial lens distortion also results in the bowing of straight lines toward the center of the image. The present aberration may also seem quite similar to a variant of the Orbison illusion consisting of a square on a pattern of concentric circles. Here, we aim to report the phenomenon and investigate if it could be explained by pincushion distortion or Orbison illusion.

Method & material:: The pattern of concentric bright circles on a dark background was once placed on the center of the camera lens field and the second time, on the left half of the field. On each setting, a pair of images was taken with the lensed focused on the wire mesh and the next time focused on a specific distance before the mesh. Other settings including distances between the camera, mesh, and the pattern were constant.

Result:: Mesh wires remained straight in the images taken when the lens was focused on the mesh. In the defocus setting, curves were formed towards the center of the circles regardless of the lens center being at a side of the concentric circles or the same place as the circles' center. Curves were formed in opposite directions on the right versus the left side of the circles despite being on the same radius from the center of the lens field.

Conclusion:: Since radial lens distortions bow image features in the same direction when being on the same radius from the lens field, the pincushion illusion could not explain the distorted pattern of wires mentioned earlier. Orbison illusion differs from the mentioned phenomena in that it is reported to be attenuated when blurred. Furthermore, it is recognized by intact vision. We propose that blurring of the fine acute angles formed where the wires intersect the outer and inner edges of the bright circles may explain the rotation of wire segments, collectively appearing as a curve. The documented pattern of distortion may contribute to diagnostic advancements and a better understanding of issues and complaints of myopic patients.

G-1664

A study of the knowledge and practices of Afghan women living in the Shahid Nasri refugee camp in Saveh County regarding the prevention of leishmaniasis

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Introduction:: Leishmaniasis is the second most important disease transmitted by protozoan parasites after malaria, and is a major public health problem in 98 countries around the world, including Iran. Control and prevention of leishmaniasis requires effective and comprehensive integrated services that focus on empowering community members. In recent years, the incidence of leishmaniasis has increased worldwide, and it can lead to serious and long-term complications. Iran is an endemic area for leishmaniasis, and Saveh County is one of the cities in Iran that hosts a large population of migrants and refugees from Afghanistan and endemic areas. Therefore, this study was designed and implemented to investigate the level of awareness of leishmaniasis and preventive behaviors among refugee women.

Method & material:: The present cross-sectional study was conducted in the spring of 1402 (2023) among 100 refugee women living in the Shahid Nasri refugee camp. Sampling was done by convenience sampling of women visiting the comprehensive health center. The data collection tool was a questionnaire on awareness and behavior regarding leishmaniasis and its prevention. Women were asked to fill out the questionnaire when they visited the comprehensive health center to receive services. The questionnaire consists of 14 awareness questions, 9 behavior questions, and demographic questions. The reliability of the present questionnaire was reported to be 84% in the awareness domain and 86% in the behavior domain. Data analysis was performed using SPSS16 software

Result:: The average age of the participants in the study was 18.37 years. 7/67% of the women were married and 3/32% of them were single. The average awareness score was 72/3 ± 13.39, which is not at an optimal level. The average of preventive behaviors for leishmaniasis in the area of paying attention to leishmaniasis prevention information was 30/3, using long sleeves 5/3, using insect repellent 2/3, using insect repellent 9/2, using mosquito nets 2/3, repairing cracks in the walls of the house 4/3, installing suitable mesh 4/3, and collecting garbage 4/3, and in total 93/5 ± 42/30 was obtained.

Conclusion:: In endemic areas, assessing the level of awareness and preventive behaviors of residents about leishmaniasis can inform the development of effective educational programs. These programs can help to increase awareness of leishmaniasis, teach preventive behaviors, and promote positive beliefs about disease prevention

G-1669

Safety evaluation of rcellularized Ostrich corneal tissue with Human Mesenchymal Stem Cells in the rabbit's cornea

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Introduction:: Corneal transplantation is one of the acceptable methods for the treatment of severe corneal disorders. However, there is a worldwide limitation for corneal donors. tissue engineering can be an alternative option to overcome this limitation. The aim of this study was to safety evaluation ostrich corneal tissue as a native extracellular matrix in the rabbit's cornea.

Method & material:: Six native ostrich corneas were prepared and decellularized with chemical detergents. Human mesenchymal stem cells were seeded on the surface of corneal tissue and evaluated by optical and electron microscopy. The recellularized cornea was implanted into the rabbit's corneal stroma. Rabbits were followed for 3 months and graft properties were evaluated by clinical and histological examination

Result:: Histological examination showed that ostrich corneal lenticule was decellularized by chemical method without ECM degradation. 3 months of follow-up of rabbits by slit lamp microscopy, pentacam imaging, and Histological evaluation showed that the graft was integrated into the host cornea. Any complication including neovascularization, opacity, inflammation, infection, or rejection was not detected.

Conclusion:: Our results indicated that this method of xenograft transplantation is a safe manner for lamellar keratopathy. Since anatomical features and diopter of ostriche cornea are similar to human eyes, suggesting that ostrich acellular corneal scaffolds may have great advantages and potential in human corneal tissue engineering.

G-1670

Challenges of technology implementation in nursing: a qualitative content analysis study

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Introduction:: Technology in health and especially in nursing education is a less known issue that researchers need to pay more attention to the challenges of this issue.

Method & material:: The statistical population of this research is all the employees of Birjand University of Medical Sciences, 15 of whom were selected by purposive sampling. This study was conducted using a qualitative method with unstructured interviews and in order to categorize the challenges and obstacles in the implementation of new technologies in nursing using the content analysis method.

Result:: The challenges of using health technology in universities of medical sciences in two levels, with three sub-levels, reluctance to change; The desire to continue with the previous program and the lack of proper justification regarding the use of these programs were under the title of the main category professors' unwillingness . The fear of the introduction of smart programs, the fear of the failure of education with these methods and the fear of conflict with students regarding the use of this type of education, were also among the other subcategories, the second category is fear of the introduction of technology into education .

Conclusion:: motivation to use new educations, giving appropriate educational grants for practical ideas and mastering smart educations, can greatly help effective education for better implementation of new technologies in medical sciences and nursing in universities of medical sciences.

G-1671

Survey the effect of mindfulness on mood disorders, fatigue, anxiety and quality of life in cancer patients: a systematic review

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Introduction:: cancer patients, even those who have completed their treatment or have a good prognosis, suffer from a variety of psychological and physiological stresses, including anxiety, depression, disorder of body image, sexual dysfunction, and impaired self-esteem. Mindfulness interventions have gained attention in cancer care and have generated strong evidence for improving cancer treatment. This research was conducted to investigate the effect of mindfulness on mood disorders, fatigue, anxiety, and quality of life in cancer patients.
Method & material:: The present study is a systematic review of clinical, experimental, and semi-experimental trial articles, using the keywords cancer, mindfulness, quality of life, anxiety, and depression, searching in PubMed, Science Direct, Wiley Online Library, and SID in the last 10 years.
Result:: Out of a total of 938 articles found, 23 articles were reviewed. 13 articles on the effect of mindfulness, 6 articles on the effect of cognitive therapy based on mindfulness, 2 articles on the effect of mindfulness with yoga and meditation, 1 article on the effect of mindfulness with tai chi exercise, and 1 article on the effect of mindfulness with muscle relaxation. 14 studies were conducted on breast cancer patients and survivors and 9 studies were conducted on all cancer patients. Most of the studies were in two groups. The results of the studies were as follows: 20 studies confirmed the effect of mindfulness exercises in improving the quality of life, mental and spiritual well-being, and reducing fatigue, anxiety, stress, and depression. In one article, it was proven that mindfulness and muscle relaxation reduce fatigue, but have no effect on quality of life. In two other studies, the effect
Conclusion:: The total findings of this study showed that mindfulness exercises alone or together with other relaxation exercises can significantly improve the quality of life and reduce mental disorders of cancer patients. However, we need more studies to confirm the effect of mindfulness along with muscle relaxation on the level of fatigue and the effect of online mindfulness exercises on the level of depression.

G-1672

Is a high dose of vitamin D improve COVID-19 patients outcomes: a systematic review

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Introduction:: Vitamin D is a fat-soluble vitamin which has pleiotropic effects on body such as modulating the immune system and suppressing cytokine storms. The severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) as a new strain Coronavirus causes coronavirus disease 2019 (COVID-19) which prominent manifestation is respiratory symptoms. There is a direct correlation between severity of disease and cytokine release syndrome. According to new released literature, Vitamin D deficiency (25(OH)D below 50 nmol/L) is independently associated with severe COVID-19 and increase infection. Also high dose vitamin D is known as a stimulant of immune system The aim of this study was to evaluate the effect of a high dose (20–80 IU/kg/day) of vitamin D on the COVID-19 recovery rate.

Method & material:: We performed electronic searches in the following databases: PubMed, ISI Web of Science, Scopus, and Google scholar using relevant key words/terms from inception to September, 2022. The selection criteria were: Clinical trials on subjects administered high dose vitamin D for treating covid 19.

Result:: Ten studies were identified as being RCTs that evaluated the high dose of vitamin D effects on mortality and recovery rates of patients with covid-19. According to results, high dose vitamin D administration had positive effect on recovery rate and improvement of patients. However, there was a controversy about the vitamin D effects on the length of hospitalization in compared to placebo. Also in studies reported vitamin D decreased serum inflammatory biomarkers, including interleukin 6 and CRP.

Conclusion:: According to collecting data, the serum concentration of vitamin D is low in most patients with severe covid-19 so it leads to longer hospital length of stay compared with patients with higher vitamin D concentrations. This supplement is an available way to improve immune system and alleviate severity of disease in infected patients. In most studies, vitamin D improves clinical results and also improves the recovery rate, and reduces the length of hospital stay.

G-1673

Positive aspects of providing care during the covid –19 epidemic from the Nurses point of view: a qualitative study

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Introduction:: The covid -19 epidemic began in December 2019, and despite strict and quarantine restrictions since March 2020, spread worldwide (1, 2). Nurses who were in close contact with Covid -19 patients faced unprecedented, social and psychological challenges (3). However, every challenge serves as a step toward change and empowerment, nurses also gained positive experiences despite the difficulties. This study, aims to explain the positive aspects of providing care during the epidemic of covid- 19 from the viewpoint of nurses.

Method & material:: This study utilized qualitative content analysis with the approach of Graneheim and Landman (4). Ethical approval were obtained from the Ethics Committee of Sirjan School of Medical Sciences with code ir.sirums.rec.1399.009 . Nurses who had at least one year of experiences in providing care for covid -19 patients were selected using purposeful sampling. Data were collected through semi-structured interviews and MAXQDA software was used to manage data.

Result:: The main theme of positive result of Covid-19 was derived from integration of three categories: 1. Acquiring new experiences which encompassed the subcategories coping with the crisis" and "gaining experience in respiratory care ; 2. Strengthening friendships which include the subcategories Improving communication with colleagues" and" improving family communication ; 3. Enhancing self-esteem which emerged from the subcategories Receiving respect from the health system" and "receiving respect from the community . The study findings highlited the positive aspects of providing care during the covid-19 epidemic.

Conclusion:: This study was conducted to explain the experiences of nurses in providing care during the covid-19 epidemic. The findings of this study, consistent with the results of similar studies, showed that nurses, despite the challenges and problems, look at the new experience as positive experiences. The team work during the crisis, improved relationships and support from the health system and the community, were effective in improving the self-esteem of the nursing society (5, 6). Ultimately nurses considered it a proud experience during a global catastrophe, and learned to handle and manage with challenges in possible future crises, while providing high quality and succeeding care.

G-1674

pharmacological factors effective in reducing chemotherapy nausea and vomiting in Iran: a systematic review

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Introduction:: Nausea and vomiting are the important side effects of chemotherapy, which cause delays in the chemotherapy program and reduce the quality of life of patients. Simply relying on medications is ineffective and often leads to harmful side effects. This study was conducted with the aim of investigating the effectiveness of non-pharmacological treatments on nausea and vomiting in patients undergoing chemotherapy in Iran.

Method & material:: The current research is a systematic review of clinical, experimental, and semi-experimental trial articles, which are searched using the keywords nausea, vomiting, chemotherapy, herbal medicine, and complementary medicine in databases PubMed, SID, Magiran, IranMedex, SCI, and Google Scholar search engine were done in the last 22 years (1380 to 1402).

Result:: Out of the 163 articles that were found, 23 were reviewed. The results were as follows:¬ the effect of ginger 3 studies, ginger and cinnamon in 1 study, acupressure 2 studies, massage therapy 2 studies, ice 1 study, skin irritation 1 study, the sound of Quran 1 study, muscle relaxation 1 study, Chamomile 1 study, semi-sitting position 1 study, mindfulness training 1 study, aromatherapy 2 studies, group behavioral activation 1 study and music 1 article. Electrical stimulation of skin, progressive muscle relaxation, the sound of the Quran, semi-sitting position, mindfulness training, aromatherapy with mint, ginger and cinnamon, ear acupressure, group behavioral activation, foot massage, and ice massage reduce nausea and vomiting. Chamomile extract, aromatherapy with cardamom, acupressure, sucking ice containing mint and music had no effect on vomiting. Back massage had no effect on reducing nausea and vomiting. Regarding the effect of ginger, contradictory results were found in different articles.

Conclusion:: The total findings of the present study showed that thought diversion methods are more effective compared to herbal medicines. Also, considering the contradictory results in herbal treatments, it is suggested to conduct wider and stronger clinical research.

G-1675

A review of the effect of Vitamin D on Cancers of breast, colon and gastric

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Introduction:: According to the reports of the Ministry of Health, Treatment and Medical Education, more than 40,000 cancer patients in Iran. Obesity, physical activity, alcohol consumption, smoking, hormone therapy, and diet are factors that play an important role in the risk of cancer. According to studies, the active form of vitamin D can affect the risk of developing malignancies in the breast, colon, and gastric because it promotes cell differentiation and reduces cell proliferation. Therefore, the purpose of this study is to review the available evidence on the effect of vitamin D on breast, colon, and gastric cancer.

Method & material:: In this study, all the articles related to the mentioned subject in PubMed, Web of science, Google scholar, Scopus databases were reviewed using appropriate keywords until 2021. According to these keywords, two authors independently conducted the search. Searching has no time or language restrictions. In this study, all retrospective, prospective and randomized clinical trial articles that investigated the effect of vitamin D on the mentioned cancers were included in the evaluation.

Result:: From the total of 20 articles found, the final analysis was done on 9 articles. In a case-control study, we observed a significant inverse association between vitamin D and the risk of these cancers. 5 studies have shown that vitamin D deficiency is associated with an increased risk of breast cancer. Cell in vitro experiments have evaluated the role of vitamin D in the development of breast cancer and have found a protective anticancer role of 1,25(OH)D3. The results of 3 observational studies on the relationship between 25(OH)D and colon cancer have shown a consistent inverse relationship between incidence and mortality. In one study, adequate levels of vitamin D are associated with a reduction in Helicobacter pylori infection, which can cause gastric cancer. However, due to the limited information on vitamin D status and GC risk, more studies are needed to reach a definitive conclusion.

Conclusion:: Considering the beneficial effects that vitamin D has, it is better to use it for these cancers and also to be used by people with genetic background and susceptibility. However, more and more RCT articles with sample size and higher quality are needed so that we can Let's reach a definite conclusion.

According to the arrangements made with the secretariet, review articles do not need a code of ethics.

G-1677

Assessment of frequency and prognostic value of acid–base and electrolyte imbalances in ICU–admitted severe COVID–19 patients

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Introduction:: COVID-19 can cause mild to severe respiratory disorders, including acute respiratory distress syndrome (ARDS) and organ failure. Acid-base imbalances originating from renal impairment can cause metabolic acidosis or alkalosis, while respiratory acidosis or alkalosis may arise due to ventilation loss or hyperventilation. Electrolyte imbalances in COVID-19 patients could be a risk indicator of severe illness and mortality. In this study we measured the prevalence and distribution of acid-base disorders in ICU-admitted COVID-19 patients

Method & material:: This cross-sectional study conducted on 250 ICU-admitted COVID-19 patients aimed to assess the prevalence and distribution of acid-base disorders and their effects on mortality and the need for mechanical ventilation. The study included patients over 16 years old with severe illness ascertained by So2 94% on room air at sea level and pulmonary involvement more than 50% according to chest CT scan reports. The study retrieved descriptive data including demographic information, laboratory tests reports, and information about the delivered serum, the degree of oxygen saturation of arterial blood with or without oxygen administration, determining the amount of delivered oxygen and method of oxygen delivery, blood pressure, and respiratory rate of patients.

Result:: The majority of the patients (50.4%) had alkalosis (high pH) due to respiratory compensation (excretion of carbon dioxide), and 74.8% had mild hypokalemia (low potassium). There was a significant association between hypokalemia and mortality (p0.05). The most frequent combination of disturbances was respiratory alkalosis with hypokalemia and mild hyponatremia (low sodium). The pH and sodium levels were significantly correlated with the need for mechanical ventilation (p 0.05).

Conclusion:: Patients with COVID-19 and hypertension had a higher mortality rate and were more likely to require mechanical ventilation. The study suggests that monitoring acid-base and electrolyte balance status could help predict patient outcomes and prevent disease progression.

G-1678

Comparison of the Effect of Pressure Control and Volume Control Ventilation on Endotracheal tube cuff pressure in Patients Undergoing General Anesthesia and Mechanical Ventilation: A Parallel Randomized Clinical Trial

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Introduction:: Endotracheal intubation and mechanical ventilation are prevalent interventions in the surgery room and intensive care unit. Recently, the complications of endotracheal tube cuff pressure have been a topic of interest. This study has been conducted to determine and compare the effect of pressure control and volume control ventilation modes on endotracheal tube cuff pressure.

Method & material:: In this triple-blinded randomized clinical trial, 50 patients undergoing open surgery and inguinal hernia were allocated to two groups of 25 based on inclusion criteria. After intubation, one group underwent ventilation on the pressure control ventilation mode, and the other underwent ventilation on the volume control ventilation mode. In both groups, using a manometer, the cuff's pressure was first adjusted in the range of 25-30 cm of water. Then, the cuff pressure was measured at 10, 20, and 30 min intervals. The data were statistically analyzed using chi-square, Fisher's exact test, independent t-test, and repeated measures ANOVA.

Result:: There was no difference in demographic variables between the intervention and control groups. The present study's findings showed that cuff pressure has significantly decreased over time in both study groups (P0.001). However, the two groups had no significant difference in cuff pressure.

Conclusion:: Since the cuff pressure has been significantly reduced in both groups over time, continuous monitoring of endotracheal tube cuff pressure in patients undergoing mechanical ventilation is essential. Therefore, it is suggested to keep the cuff pressure within the recommended range to prevent complications resulting from cuff pressure reduction, such as aspiration and ventilation decrease

G-1679

Antibacterial properties of antipsychotic drugs: a systematic review

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Introduction:: Every year, antibiotic-resistant germs kill 700,000 people. Because new treatments take so long to develop, marketing them is costly. Drug repurposing is the practice of reusing medications that have been thoroughly researched and tested. Several studies have shown that antipsychotic medicines can treat multi-drug-resistant bacterial infections; therefore, this study will look into repurposing them to treat antibiotic-resistant bacterial infections.

Method & material:: According to PRISMA criteria, we searched PubMed, Embase, Web of Science, and the Cochrane Library for articles that studied the antibacterial effects of antipsychotic medications in humans or animals. Randomized controlled trials, cohort studies, case control studies, and in vitro studies were all included. Two reviewers separately evaluated the titles and abstracts of the eligible papers, followed by the full texts. The GRADE method was used to assess the quality of the evidence.

Result:: The results of 19 different studies were looked at in this particular analysis. Certain antipsychotic medications, in particular those belonging to the phenothiazine and thioxanthene families, have been shown to possess antibacterial activity against a wide range of bacteria and yeasts. The mechanisms of action behind these drugs are not fully understood; nevertheless, they may involve interfering with the integrity of bacterial membranes, the formation of biofilms, the activity of efflux pumps, and quorum sensing. It is possible that the antibacterial properties of antipsychotic medications could be useful in the treatment or prevention of infections, particularly in people who suffer from psychiatric problems and are therefore at a greater risk of contracting an infection. However, there are a few drawbacks and difficulties associated with employing antipsychotic drugs as bactericidal agents. These include the possibility of side effects, interactions with other medications, the growth of resistance, and ethical concerns.

Conclusion:: Antipsychotics are a possible treatment for multi-drug-resistant bacterial infections. Despite their antimicrobial effects, utilizing antipsychotics as an antibacterial drug can generate issues that require additional investigation.

G-1685

Intelligent Approaches for Wound Healing: Integrating Cells and Scaffolds in Smart Wound Repair Systems

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Introduction:: Wound healing is a complex process that involves the coordinated interaction of cells and the extracellular matrix. Conventional wound repair approaches often face limitations in achieving optimal healing outcomes, especially in chronic wounds and tissue defects. The concept of smart wound repair using cells and scaffolds has emerged as a promising strategy to address these challenges. This abstract provides an overview to highlight the potential of smart wound repair strategies in modern regenerative medicine.

Method & material:: A comprehensive search was conducted according to the PRISMA guideline, using PubMed, Scopus, and Web of Science databases. The search terms used included regenerative medicine , Cell therapy for wound repair , advanced wound healing , and Tissue engineering for wound healing . Original research articles, reviews, and clinical studies published in English within the last 10 years were considered. Additional references were obtained by reviewing the bibliographies of selected articles.

Result:: Smart wound repair systems which have shown promising results in preclinical and clinical studies, integrate cells, such as stem cells, with biocompatible scaffolds. These cells possess the remarkable ability to differentiate into specific cell types and secrete growth factors that facilitate wound healing. By harnessing the regenerative potential of these cells, researchers have sought to enhance the wound healing process. Combining cells with biocompatible scaffolds provides a supportive three-dimensional environment that mimics the natural extracellular matrix, enabling cell attachment, proliferation, and differentiation. Bioactive molecules and biomaterials are incorporated into the scaffolds to enhance the regenerative potential. Additionally, advanced technologies, such as sensors and microfluidic devices, enable real-time monitoring of wound parameters, including pH, temperature, oxygen levels, and bacterial presence. Furthermore, smart wound repair systems can be engineered to incorporate various sensing and feedback mechanisms. This feedback allows for dynamic adjustments in the delivery of therapeutics, optimizing the healing process and

Conclusion:: Smart wound repair using cells and scaffolds represents a significant advancement in wound healing strategies. By harnessing the regenerative potential of cells and leveraging the supportive properties of biomaterial scaffolds, these systems offer the potential for improved healing outcomes. Continued research and development in materials science and bioengineering will further refine these systems and pave the way for their widespread application in regenerative medicine.

G-1687

Nanomaterials in Stem Cell Therapy: A Review of Advancements and Potential Applications

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Introduction:: Stem cell therapy holds great promise for regenerative medicine, offering potent treatments for various diseases and injuries. However, effective and targeted delivery of stem cells to the desired sites remains a challenge. In this context, nanomaterial-based platforms have emerged as powerful tools in stem cell therapy by enhancing cell targeting, survival, and functionality. This review highlights the recent advancements and potential applications of nanomaterials in stem cell therapy

Method & material:: A systematic search was conducted according to the PRISMA guidelines using PubMed, Scopus, and Web of Science. The search terms used included stem cell therapy, nanotechnology , nanomaterials , and regenerative medicine". Relevant articles published in English from the past 10 years were considered. The search included original research articles, reviews, and clinical studies related to combination of nanotechnology and stem cell therapy.

Result:: Nanomaterials, including nanoparticles, nanofibers, and nanocomposites, are considered as delivery vehicles for stem cells offering precise targeting capabilities to deliver stem cells to specific tissues or organs. Surface modification of nanoengagers by incorporating targeting ligands or antibodies, can provide specific recognition and improving the specificity and efficiency of stem cell homing. Additionally, nanomaterial-based scaffolds can protect stem cells from the harsh extracellular environment, enhance their stability during transportation, and facilitate their controlled release at the target site. Moreover, they can provide a supportive microenvironment for stem cells by regulating factors such as oxygen, nutrient supply, pH levels, and growth factor release. nanomaterials such as quantum dots or iron oxide nanoparticles can be designed to incorporate imaging agents, enabling real-time tracking and monitoring of transplanted cells. These imaging modalities provide valuable insights into stem cell migration, distribution, and engraftment, allowing researchers to evaluate treatment efficacy and optimize therapeutic protocols. Despite the

Conclusion:: Nanotechnology represent a promising avenue for enhancing the targeted delivery, survival, tracking and functionality of stem cells in regenerative medicine. However, further research and development are necessary to overcome challenges and ensure the safe and effective implementation of nanomaterials in clinical settings. With further advancements in nanotechnology and stem cell biology, and through interdisciplinary collaborations, there is significant potential to revolutionize stem cell therapy and address unmet medical needs.

G-1688

When Biomaterials Meet Cells: Islet Cells Encapsulation as a Promising Novel Approach for Diabetes Treatment

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Introduction:: Type 1 diabetes is characterized by insufficient insulin production due to the autoimmune destruction of pancreas insulin-producing islet cells. Transplantation of islet cells, which entails retrieving islet cells from a donor and their subsequent transplantation, has been proposed as a promising cell therapy for this disease due to the potential to restore insulin production. However, the success of this treatment is limited by the requirement for lifelong use of immunosuppressive drugs to prevent rejection of the transplanted cells. In this context, advancements in the islet cell encapsulation field provide more effective therapy.

Method & material:: A systematic search was conducted according to the PRISMA guidelines to gather information for this review, using the following scientific databases: PubMed, Scopus, and Web of Science. The search terms used were diabetes treatment, islet cell transplantation," "immunoisolation, microencapsulation, and biomaterial-based encapsulation. Relevant articles, including reviews and clinical studies published between 2010 and 2023 were considered. The search focused on studies investigating the efficacy, safety, and challenges associated with islet cell encapsulation in diabetes treatment.

Result:: Based on the literature, encapsulation techniques have successfully protected transplanted islet cells from immune rejection, enabling long-term survival and function. Various biomaterials, such as alginate, and polyethylene glycol in the form of nanofibers, have been studied for encapsulation, each with its advantages and limitations. Studies have shown that patients who received encapsulated islet cell transplants experienced improved glycemic control, reduced hypoglycemic events, and decreased insulin requirements. Despite these promising findings, several challenges hinder the widespread application of islet cell encapsulation. The limited availability of islet donors, the need for a sufficient supply of viable islet cells, and the establishment of a reliable and scalable encapsulation process are significant obstacles. Additionally, concerns remain regarding the foreign body response, fibrosis, and eventual loss of encapsulated cell function.

Conclusion:: Islet cell encapsulation represents a promising approach to diabetes treatment, offering the potential for long-term glycemic control without the need for immunosuppression. Encapsulation technologies, combined with advancements in biomaterials, have demonstrated the ability to protect transplanted cells and improve patient outcomes. However, further research is needed to address the challenges associated with encapsulation, including donor availability, scalability, immune response, and long-term function. With continued efforts and collaboration between researchers, clinicians, and industry, islet cell encapsulation holds great potential to revolutionize diabetes treatment and improve the quality of life for patients living with this chronic disease.

G-1689

The Effect of Allopurinol and Uric Acid Reduction on GFR in Patients with Chronic Renal Failure

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Introduction:: Hyperuricemia is a major risk factor for the progression of chronic kidney disease (CKD). Considering that allopurinol reduces the amount of uric acid, the purpose of this study is to investigate the effect of allopurinol on the course of the disease in patients with kidney failure

Method & material:: The renal failure level of patients was determined by performing blood tests and measuring the levels of uric acid, creatinine, potassium, and GFR. Then the patients were divided into two groups: the intervention group receiving allopurinol tablets at 100 mg daily and the control group receiving no medication. After three months, the levels of uric acid, GFR, creatinine, and potassium were measured for each patient. The data obtained from the study were analyzed using SPSS version 16 software. The Kolmogorov-Smirnov test was used to determine the normal distribution of the data, the T-test was used to check the data with normal distribution, and the Wilcoxon Signed Ranks test was used for the data without normal distribution. The significant level in all tests was considered P0.05.

Result:: In this study, 91 patients participated, 57 of whom (62.6%) were men, and the deviation from their mean age was 63.94±13.11. In this study, 91 patients participated, 57 of whom (62.6%) were men, and the deviation from their mean age was 63.94±13.11. According to the results, there was a significant difference between serum potassium level, and GFR after the allopurinol drug was not found in the patients. Regarding the number of changes in the serum levels of creatinine and uric acid, there was a statistically significant difference in the amount of these two variables and it was observed after taking allopurinol drug and in the examination of the change of GFR in patients before and after the intervention, the results showed that more than 51 people (55.4%) of the patients had GFR changes less than 10 and 35 people (38%) of the patients had GFR changes more than 10.

Conclusion:: The use of allopurinol for the treatment of renal failure caused positive effects such as a significant decrease in the serum levels of uric acid and creatinine in the patients in this study, and the results indicated a decrease in the progression of the disease with an increase in the GFR of the patients.

G-1691

Association between dietary glycemic index and load with circadian rhythm in overweight and obese women: a cross sectional study

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Introduction:: previous studies have indicated that obesity is associated with dietary glycemic index and load, and circadian rhythm. The aim of this study was to investigate whether the glycemic index and load was related to circadian rhythm in overweight/obese women.

Method & material:: This cross-sectional study was conducted using 287 overweight and obese women, aged 18-50y. Dietary exposure was evaluated by a 147-item semi-quantitative food frequency questionnaire (FFQ). Total dietary GI was estimated using the following formula: ∑ (GIa X available carbohydrate)/total available carbohydrate. Dietary GL was calculated as (total glycemic index * total available carbohydrate)/100. To determine the circadian rhythm status, the 19 items Horne and Ostberg morning/ evening questionnaire (MEQ) was used. Biochemical parameters, hyperlipidemia factors, and anthropometric components were measured.

Result:: A significant relationship was found between GL with circadian rhythm, where, as glycemic load increases, the eveningness percentage increases (P = 0.029). We did not find any significant relationship between GI with circadian rhythm (P=0.57). The multinomial logistic regression model revealed that individuals with higher GL (71.78) had 61% greater chance for being in the eveningness vs. morningness category, and this relationship remained significant after adjusting for age and BMI (OR=1.62, p=0.043).

Conclusion:: In the current study, we found a direct significant association between increased GL and evening type among overweight and obese Iranian women. Future studies are required to evaluate long-term high GL and GI effects on circadian rhythm.

G-1692

Interaction of fatty acids quality indices (FAQI) and genetic predisposition and on visceral adiposity index (VAI) and body adiposity index (BAI) among overweight and obese women

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Introduction:: In recent years, different studies have shown that the quality of fat intake in the diet is related to obesity and body fat percentage (BFP). On the other hand, genetics risk score (GRS), as a result of the combined impact of multiple single nucleotide polymorphisms (SNPs), is a beneficial tool for predicting obesity risk factors. In the present study, we sought to investigate the interaction of GRS and FAQI on visceral adiposity index (VAI) and body adiposity index (BAI) among overweight and obese women.

Method & material:: 278 overweight and obese women aged 18–58 years old was included in this study. We used a 147-item semi-quantitative food frequency questionnaire (FFQ) for evaluating the dietary intake and the dietary FAQI (including cholesterol saturated fat index (CSI) and omega6/omega 3 (N6/N3)). Standard protocols were used to assess biochemical measurements. Anthropometrics values and physical activity were measured by standard methods. Finally, the GRS was created by combining three SNPs [Caveolin-1 (rs3807992), Cryptochrom-1 (rs2287161), and Melanocortin-4 (rs17782313)].

Result:: Mean age of study participants was 36.52±8.91 years. In the both crude and adjusted model, there was a non-significant decrease in mean VAI across tertiles of CSI score, and also a non-significant increase in mean VAI across tertiles of N6/N3 score. There was no significant difference in BIA across tertiles of CSI score and N6/N3 score. Moreover, there was a significant interaction between the GSR and N6/N3 on VAI in both crude (B=70.70, SE=35.14, CI:1.81-139.55, P=0.04) and adjusted (B=93.67, SE=39.28, CI:16.68-17.68, P=0.01) models. No significant other interaction was found between GRS and the CSI or N6/N3 on VAI and BAI.

Conclusion:: This study shows, eating more food sources containing a higher ratio of N6/N3 may be the reason for the increase in VAI in obese women who have high obesity related SNPs and emphasizes the matter of personalized nutrition in obesity issue.

G-1693

The interaction between genes related to lipid homeostasis (Melanocortin 4 receptor and Caveolin 1) and fatty acid quality indices and on stress, anxiety and depression among overweight and obese women

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Introduction:: Mental disorders are associated with dietary fatty acids and genome-wide association studies. The aim of this study is to investigate the interaction between fatty acid quality indices and genes related to lipid homeostasis on stress, anxiety and depression among overweight and obese women.

Method & material:: This cross-sectional study included 378 overweight and obese women aged 18-68 years. Body composition, anthropometric indices, blood pressure, physical activity, and dietary fat quality indices were measured. Melanocortin 4 receptor (MC4R) and caveolin 1 (CAV1) were genotyped by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) technique. Mental health was evaluated using Depression Anxiety Stress Scales (DASS-21).

Result:: The results of the study showed that a positive interaction between TC genotype of MC4R and CSI on depression (β=0.30, CI=0.04, 0.56, P=0.023), and DASS-21 (β=0.62, CI= -0.32, 1.27, P=0.062) in the crude model. After adjusting for age, energy intake, thyroid disease, physical activity, and BMI in model 1, the interaction between TC genotype of MC4R and CSI on depression (β=0.39, CI=0.12, 0.66, P=0.004), and DASS-21 (β= 0.074, CI=0.04, 1.44, P=0.036) remained positive. Also, there were some marginal significant interactions between AG genotype of CAV-1 and N6/N3 ratio on depression in both crude (β=13.44, CI=--0.99, 27.88, P=0.068) and adjustment model1 (β=16.83, CI=-0.19, 33.85, P=0.053).

Conclusion:: The interaction between TC genotype of MC4R and CSI on depression and DASS-21 was positive. Also, there was some marginal significant interaction between AG genotype of CAV-1 and N6/N3 ratio on depression.

G-1694

Investigation the interaction of melanocortin 4 receptor (MC4R) gene variant (rs17782313) and dietary fat quality indices on metabolically healthy and unhealthy overweight and obese women

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Introduction:: Obesity has become a common global problem. Some obese people have metabolically healthy. Gene-environment interaction can be important in this context. This study aimed to assess the interaction between dietary fat quality indices and MC4R gene in metabolically healthy and unhealthy overweight and obese women.

Method & material:: 279 overweight and obese women had participated in this study. Definition of metabolically healthy and unhealthy phenotype was done according to Karelis criteria. Dietary assessment was done using a 147-item food frequency questionnaire (FFQ) and dietary fat quality was assessed by cholesterol-saturated fat index (CSI) and the ratio of omega-6/omega-3 (N6/N3) essential fatty acids. Melanocortin 4 receptor (MC4R) was genotyped by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) technique.

Result:: Study subjects with higher ratio of N6/N3 had higher HOMA IR index (P=0.03). Participants with C allele of MC4R rs17782313 had lower height (P0.001) and higher HOMA index (P=0.01). The CC genotype of MC4R interacts with the N6/N3 ratio on the metabolically unhealthy phenotype in crude (β=9.94, CI: 2.49 to 17.39, P= 0.009) and adjustment model (β=9.002, CI: 1.15 to 16.85, P= 0.02, β=-12.12, CI: 2.79 to 21.46, P= 0.01).

Conclusion:: Those with CC genotype, are more likely to have an unhealthy phenotype with an increase in N6/N3 as one fat quality indices than those who do not have CC genotype. We found the interaction of dietary fat quality indices as N6/N3 and the mc4r gene in metabolically unhealthy overweight and obese women.

G-1695

The association of glycemic index and glycemic load with appetite, adiposity and bone health Among Overweight and Obese Women: A Cross-sectional Study

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Introduction:: previous studies have been performed on the association of glycemic index (GI) and glycemic load (GL) with appetite, adiposity and bone health separately. However, these studies do not provide an integrated and consistent result. Considering that no similar study has been done in Iran, therefore, we aimed to investigate the relationship between GI and GL with appetite, adiposity and bone health in overweight and obese women.

Method & material:: 276 overweight and obese women was included. A validated 147-item FFQ evaluated the dietary intake. Total dietary GI was estimated using the following formula: ∑ (GIa X available carbohydrate)/total available carbohydrate. Dietary GL was calculated as (total glycemic index * total available carbohydrate)/100. Anthropometrics and physical activity were assessed and bone mineral content were measured by a bioelectrical impedance analyzer (BIA). ELISA kits were used to assess ghrelin and insulin hormones. Fat mass index (FMI) also was calculated by its equation.

Result:: We discovered a significant positive correlation of the GI with BMC (β= -0.009, 95%CI= -0.01 to -0.002, p =0.01) and ghrelin (β= 0.10, 95%CI= 0.009 to 0.21, p =0.03) after controlling for confounding variables such as age, physical activity, BMI, and energy intake. There was also a marginally significant link between GI and BMI (β= 0.07, 95%CI= -0.004 to 0.15, p =0.06) and FMI (β= 0.05, 95% CI-0.006 to 0.122 to 0.15, p =0.07). In addition, we identified a association between GL and ghrelin (β= 0.002, 95%CI= 0.00 to 0.003, p =0.03).

Conclusion:: The results showed that dietary GI was associated with lower BMC and increased adiposity indices such as BMI and FMI. Incremental changes in GI and GL appeared to elevate ghrelin response in overweight and obese women.

G-1696

Effect of local oxygen on blood glucose level and chronic diabetic foot wound healing: a randomized controlled clinical trial

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Introduction:: One of the most common non-communicable and metabolic diseases with symptoms and debilitating complications in society is diabetes. Foot ulcer (DFU) is the most common, most costly and most serious complication of diabetes. The aim of this study was to compare the effect of standard wound care with local oxygen therapy and with standard wound care alone on wound healing and blood glucose control.

Method & material:: This Multicentre, randomised, single-blind clinical trial study was conducted on 40 patients admitted to the surgery department with grade 2 diabetic foot ulcers in teaching and treatment hospitals of Qazvin University of Medical Sciences. Sampling was done by the Kevin Tossing method and they were divided into two groups of intervention (20 people) and control (20 people) by a simple random allocation method. In the intervention group, daily oxygen was administered through a catheter with a flow rate of 10 liters per minute for 20 minutes three times a day for one to two weeks at a distance of one centimeter from the wound.The condition of the wound was checked by the PUSH criterion before and every 48 hours after the start of the intervention for four weeks. Physiological indicators of the wound and blood sugar levels were measured before and after the intervention. Data analysis was done through the

Result:: The results of repeated measure variance analysis showed that the mean score of wound healing between the two groups was statistically significant (P=0.003) and local oxygen had a significant effect on wound healing. Regarding the intra-group effects, the effect of time on the average score for wound healing is statistically significant and the average score on the first, third, fifth and seventh days was significantly different (P=0.001 and F=387.241). Both groups were similar in terms of basic data and initial FBS level and had no statistical difference. At the end of the intervention, fasting blood sugar in the intervention group (160.04 ± 11.06) showed a significant decrease compared to the beginning of the study (191.02 ± 9.14) (P = 0.001).

Conclusion:: Local oxygen therapy accelerated wound healing in people with diabetes. Also, the average blood sugar level decreased. Considering that local oxygen therapy is an inexpensive and accessible method in the treatment of chronic wounds, including diabetic foot ulcers, we claim that at least 20 sessions of oxygen therapy are required to be effective.

G-1697

The interaction between long non-coding RNA MALAT1 and TUG1 with dietary fatty acid quality indices on cardiometabolic risk factors in overweigh and obese individuals

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Introduction:: Obesity is one of the most important factors involved in cardiometabolic diseases, which are influenced by the interactions of environment and genetics. long noncoding ribonucleic acids (lncRNAs) serve various biological purposes, which their irregular expression linked to several metabolic diseases. Therefore, we aimed to investigate the interaction between lncRNAs MALAT1 and TUG1 with dietary fatty acid quality indices (DFQI) on cardiometabolic risk factors among overweight and obese women.

Method & material:: 346 overweight and obese women (18-68 years), were included. Weight, height, body mass index (BMI), waist circumference (WC), waist-to-hip ratio (WHR), and body fat mass (BFM) were taken. Systolic and diastolic blood pressure were measured. Biochemical determination was performed for fasting blood glucose (FBG), triglyceride (TG), total cholesterol (TC), and high and low-density lipoprotein (HDL-c and LDL-c). A validated and reliable 147-item semi-quantitative food frequency questionnaire (FFQ) was used to assess dietary intake. The cholesterol-saturated fat index (CSI) was used as a measure of DFQI. A real-time polymerase chain reaction (real-time PCR) was performed based on the criteria of the minimum information for publication of quantitative (MIQE) guidelines.

Result:: After controlling for confounding variables, significant positive interactions between lncRNAs MALAT1 expression and tertile 2 of CSI, compared to the reference group, were observed on TG, homeostatic model assessment-insulin resistance (HOMA-IR), WC, and WHR. There was also a positive interaction between the third tertile of CSI and lncRNAs MALAT1 on TC and LDL-c. Moreover, there were positive interactions between lncRNAs TUG1 expression and the second tertile of CSI on LDL-c, FBG levels, and HOMA-IR. We also noted a positive interaction in tertile 3 of CSI and lncRNAs TUG1 expression on BFM.

Conclusion:: It appears that lncRNAs MALAT1, and TUG1, via interactions with DFQI, are involved in elevated cardiometabolic risk factors. However, further prospective studies are necessary to elucidate this concept.

G-1698

Interaction of genetics risk score (GRS) and fatty acids quality index on circadian rhythm and quality of life among overweight and obese women

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Introduction:: Decreased quality of life (QOL) and malpractice of circadian rhythm can lead to major health problems. Cholesterol-Saturated Fat Index (CSI) may have an impact on different aspects of QOL and circadian pattern. Weight and circadian rhythm are affected by many genes. We calculated Genetic Risk Score (GRS) by combining related SNPs and investigated the interaction between GRS and CSI on circadian rhythm and QOL among overweight and obese women.

Method & material:: In this cross-sectional study, we recruited 279 overweight and obese 18-68 years old women by multi-stage simple random sampling from health centers of Tehran. Anthropometric variables, systolic and diastolic blood pressure and biochemical factors were measured using standard protocols. QOL was evaluated by the SF-36 questionnaire. The circadian pattern was measured by MEQ (The morningness–eveningness questionnaire). We collected dietary intake information with a valid and reliable 147-item food frequency questionnaire. We used CSI as a fatty acid quality index (FAQI). Physical Activity was assessed by the IPAQ. The genetic risk score was created by combining three single nucle¬otide polymorphisms [MC4R (rs17782313), CAV-1 (rs3807992), and Cry-1 (rs2287161)] and general information was measured by a self-report questionnaire. A generalized linear model was used to estimate the interactions between GRS and CSI on the circadian rhythm, QOL and its subgroups.

Result:: We found a significant interaction between GRS and second tertile of CSI on circadian rhythm (β= -0.50, CI= -0.94-(-0.07), p= 0.02) and role emotional (β= -2.40, CI= -4.63-(-0.18), p= 0.03) in the crude model, moreover, a towards significant interaction was found on general health (β= -0.85, CI=-1.73-0.02, p= 0.05). Furthermore, a significant interaction was found between GRS and last tertile of CSI on health transition (β= 1.31, CI= 0.03-2.59, p= 0.04). After adjustment for confounding factors, significant interactions between GRS and second tertile of CSI on circadian rhythms (β= -0.61, CI= -1.06-(-0.16), p= 0.008) and social functioning (β= -1.80, CI= -3.12-(-0.47), p= 0.008), and health transition (β= -1.95, CI= -3.48-(-43), p= 0.01) were reported.

Conclusion:: We find that the higher the GRS predisposition and the higher intake of the CSI, reduces the QOL. Also, significant interaction was found between GRS and CSI on health transition, social functioning and circadian rhythm. These findings emphasize the importance of addressing overall GRS and FAQI on circadian rhythm and QOL among overweight and obese women.

G-1699

The association between Cholesterol/Saturated Fat Index (CSI) and quality of sleep, and Circadian rhythm among overweight and obese women: A cross-sectional study

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Introduction:: Low sleep quality is one of the main public health problems affecting the global population. Cholesterol/saturated fatty acid index (CSI) determines the amount of cholesterol and saturated fatty acid can affect the quality of sleep and circadian rhythm. However, to date, no studies have investigated the effect of this index on these two variables. Therefore, we investigated the relationship between CSI on sleep quality and circadian rhythm in overweight and obese women.

Method & material:: A total of 378 obese and overweight adult women participated in this cross-sectional study. Anthropometric measurements and biochemical factors were assessed. In order to assess dietary intake, food frequency questionnaire was used (FFQ 147-items). To determine the amount of cholesterol and saturated fatty acids, the CSI was measured. Also, valid MEQ and PSQI questionnaire were used to evaluate circadian rhythm and sleep quality, respectively.

Result:: A significant association observed between circadian rhythm status and CSI, and participants with one higher unit of CSI had 7.3% more chance for being in eveningness group than being in morningness category in crude (OR: 1.07; 95% CI:1.00,1.14; P=0.026) and adjusted model (OR= 1.08; 95% CI:1.00,1.16; P=0.051). Those with one higher unit of CSI had 1.6% more chance for having sleep problem (OR: 1.01; 95% CI:0.96,1.06; P=0.503).

Conclusion:: Direct marginally significant association was between CSI with evening type in overweight and obese women. Future studies are needed to clarify the precise link between circadian rhythm and sleep behavior with fatty acid quality index.

G-1702

The association between Cholesterol/Saturated Fat Index (CSI) and quality of sleep, and Circadian rhythm among overweight and obese women: A cross-sectional study

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Introduction:: Erectile dysfunction (ED) is one of the most common disorders in urology and affecting some people lives. Although this disorder is often caused by vascular problems, non-vascular diseases can also be the reason. In this study, a witness case and a cross-section for serum levels of vitamin D, phosphorus, parathyroid hormone (PTH) and calcium levels in patients with ED were compared with controls.

Method & material:: Study was performed as Case-control study for people with erectile dysfunction under the age of 40 in the period from May 2020 to May 2021 for patients referred to the urology clinic in Ilam-Iran. Preliminary data were collected for this study and then 10 cc of venous blood sample was received from the participants in the study. serum levels of vitamin D, phosphorus, creatinine, albumin, PTH and calcium levels were measured and finally the data were analyzed by SPSS 21.

Result:: Twenty people with ED and Twenty healthy people under the age of 40 participated in the study. The mean age of patients with ED was 30.8 ± 2.4 years and the mean age of controls was 28.4 ± 2.3 years. Plasma level of vitamin D in patients with ED was 61.27 ± 2.2 ng/ml and in the control group was 36.24 ± 2.9 ng/ml (p0.05). Plasma level of phosphorus in patients with ED was 3.6 ± 0.3 ng/ml and in the control group was 4.6 ± 0.6 ng/ml (p0.05). Testosterone levels were 4.62 ± 0.53 ng/ml in patients with ED and 6.7 ± 0.58 ng/ml in the control group (p0.05). There was no significant differences in parathyroid hormone and plasma and urinary calcium levels between the groups.

Conclusion:: The results of this study shows that changes in the levels of vitamin D, phosphorus and testosterone can be effective in erectile dysfunction. so by conducting more studies and determining the underlying pathogenesis and elimination of these disorders, treatment for erectile dysfunction can be achieved.

G-1703

prevalence of anxiety symptoms in patients with acne and seborrheic dermatitis

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Introduction:: Acne vulgaris is the most common skin condition caused by sebaceous glands and it affects about 50 million people in the United States each year. The disorder mainly affects the face, chest or back. Seborrheic dermatitis is a papulosquamous disorder that occurs in areas rich in sebum from the head, face and trunk. Various studies have shown a high prevalence of psychiatric disorders in patients with skin diseases. In this study, we investigated the prevalence of anxiety symptoms in patients with Acne vulgaris and Seborrheic dermatitis.

Method & material:: The present case-control study was performed to study the prevalence of anxiety symptoms in patients with Acne vulgaris and Seborrheic dermatitis referred to the dermatology clinic of Imam Khomeini Hospital in Ilam-Iran in 2020. Anxiety symptoms in these patients were assessed using a pre-prepared questionnaire based on the Beck Anxiety Inventory psychological test. data were analyzed by SPSS version 22.

Result:: The mean total score of anxiety symptoms was 13.34±8.72 which was 13.61±8.72 in the patient group and 13.07±8.72 in the control group. The results showed that 68% and 64% of the women in the study had acne and dermatitis, respectively. the mean score of anxiety in women with acne was 15.04 and dermatitis was 14.76. The prevalence of severe anxiety symptoms was higher in patients with Seborrheic dermatitis than in patients with Acne vulgaris. The highest percentage of severe anxiety symptoms was reported in women more than men in all three groups. The rate of severe anxiety symptoms in control group and patients with Seborrheic dermatitis was higher than patients with Acne vulgaris.

Conclusion:: The results of the study showed that the symptoms of anxiety in Seborrheic dermatitis patients are more than patients with Acne vulgaris and in terms of the severity of anxiety in the patient and control groups, similar results were reported. Anxiety symptoms were more common in women and increased with age.

G-1704

360-Degree Investigation of the Clinical Evaluation Status of Undergraduate Nursing Students: A Cross-Sectional Study and a Meta-Analysis

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Introduction:: An important feature of modern medical education is the emphasis on evaluation to ensure quality in educational programs, motivate students and guide their knowledge. This study aimed to evaluate the clinical evaluation status of undergraduate nursing students from the perspectives of students, clinical instructors, faculty members, and administrators in a nursing college in Iran.

Method & material:: In the first phase, a cross-sectional study was conducted in 2023 on 263 students of the 3rd to 8th semesters of Bachelor of Nursing and 23 professors of Mashhad nursing college By Convenience Sampling. The data collection tool included a clinical evaluation status questionnaire and demographic information questions, completed face-to-face and electronically. In the second phase, a meta-analysis was conducted per the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol. cross-sectional studies was defined as a comprehensive and systematic search without the time and language restrictions in Iran's information databases such as SID, Irandoc, and Magiran with the keywords 360-degree evaluation, clinical evaluation, Nursing students, Undergraduate. After reviewing the studies, the present cross-sectional study questionnaire was used in only two other studies in Iran, and their results were included in the meta-analysis with the results of the present cross-sectional study. The collected data were analyzed by SPSS software

Result:: This study shows 42.5% of the students, 40% of the clinical instructors, 71.5% of the faculty members, 75% of the administrators, and 65.2% of the professors, overall, consider the current state of clinical evaluation inappropriate and disagree with it. According to the ANOVA test, there was no significant difference between the opinions of students, clinical instructors, faculty members, and administrators. The average overall score of students' opinions was 3.17±0.68, clinical instructors 2.78±0.99, faculty members 3.37±0.85, and administrators 3.45±1.15. As the result of the Meta-Analysis study, which includes three studies, the average overall score of the current clinical evaluation comments for 614 nursing students was 2.71±0.36, and for 83 professors, it was 2.87±0.21. These scores are less than the average 3 .

Conclusion:: It is impossible to adequately meet students' needs and expectations through the current clinical assessment process. To improve the current situation, various evaluation methods, interactive methods, consideration of appropriate evaluation tools, and formulation of clear and valid criteria are essential. In addition to constructive feedback courses, training, and improving the skills of clinical instructors and teachers, efficient and effective collaboration and coordination between educational institutions,

G-1705

Quercetin intake and pancreatic cancer: a systematic review of prospective cohort studies

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Introduction:: Pancreatic cancer is known as a particularly aggressive form of cancer with low incidence but a high fatality rate. Recent studies have shown that several phytochemicals such as quercetin have a protective effect against development of cancers. Quercetin is a polyphenolic compound abundant in apples, grapes, red raspberry, and onions that has been widely found to exhibit anticancer activity with low toxicity. The current systematic review was conducted to evaluate the association between the dietary intake of quercetin and the risk of pancreatic cancer by considering prospective cohort studies.

Method & material:: In this study, related articles up to May 2023 were systematically reviewed on national (SID) and international databases (PubMed, ProQuest, Google scholar, Scopus, Emerald, ISI web, Tripdatabase) without time and language limitations, using relevant keywords. Required data were extracted from each study and also quality assessment was done based on the Newcastle Ottawa scale.

Result:: Among 325 articles found in the initial search, 3 prospective cohort studies with a total sample size of 819120 and 1962 cases of pancreatic cancer were eligible and therefore included. All the studies had high quality and reported a significant inverse association between dietary intakes of quercetin and risk of pancreatic cancer in adults. Quercetin is a flavenol and flavonols might act as cancer prevention agents, such as by the inhibition of certain cytochrome P450 enzymes which are involved in the bioactivation of chemical carcinogens.Quercetin may target CD36 and reduce the death rate caused by pancreatic cancer by enhancing the cell adhesion, mediating the uptake of fatty acids, regulating thrombospondin-1, and stimulating the immune response. Also it triggers inhibition of epithelial–mesenchymal transition (EMT), invasion, and metastasis by blocking the STAT3 signaling pathway.

Conclusion:: Based on this systematic review, quercetin may decrease pancreatic cancer risk and development. However, its effects of death from pancreatic cancer are not clear. Further studies are needed to reach a definitive conclusion in this area.

G-1706

Effect of local oxygen therapy on perceived stress and pain intensity in people with chronic diabetic foot ulcers: a randomized controlled clinical trial

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Introduction:: Considering the high prevalence of diabetes, suffering from diabetic foot ulcers as one of the complications of this disease, neurological and vascular disorders of these patients and their high blood sugar, which prevents oxygen exchange. It causes a delay in wound healing and the patient is exposed to pain and stress. Therefore, the present study was conducted with the aim of investigating the effect of local oxygen therapy on the perceived stress and pain intensity of people with diabetic foot ulcers.

Method & material:: In this Multicentre randomised single-blind clinical trial, 40 patients with diabetic foot ulcers hospitalized in the surgical departments of Qazvin teaching hospitals in 2019 were selected by available sampling method and then randomly assigned to two groups of 20 people, test and control. In the intervention group, oxygen was administered daily through a catheter with a flow of 10 liters per minute for 20 minutes three times a day for one week at a distance of one centimeter from the wound. The control group received usual care. Data were collected through a three-part questionnaire of personal and disease-related information, Cohen's perceived stress scale and visual pain intensity scale before and after the intervention, and analyzed using SPSS version 22 software and independent t-tests and chi-square. became.

Result:: After the intervention, the average score of the total perceived stress of the test group (28.04 ± 6.12) was lower than the control group (35.23 ± 4.21) and the difference between the mean and the standard deviation of the obtained data was significant. P = 0.001). The average score of pain intensity in the control group was higher than that of the test group after the intervention, and the average change of pain intensity scores in the test group using the independent T test was significantly lower than that of the test group (P=0.03).

Conclusion:: Based on the findings, local oxygen therapy intervention was effective in reducing perceived stress and pain intensity in patients. Local oxygen therapy is an inexpensive and low-complication intervention, and further research is recommended.

G-1707

Optimization of culture conditions for soluble expression anti-PD-1/CTLA-4 diabody in Escherichia coli using surface response methodology

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Introduction:: The anti-CTLA-4 and anti-PD-1 antibodies combination enhances effectiveness of cancer therapy, hence the interest in developing a bispecific diabody against them. Escherichia coli is a common host for recombinant protein expression, but it has drawbacks such as inclusion body formation, metabolic burden, and poor protein transport. To improve the expression and solubility of the diabody in E. coli, we used response surface methodology (RSM) to optimize four factors: temperature, medium, expression time, and IPTG concentration .This technique allows the evaluation of the effects of multiple factors and their interactions on the desired response (the amount of soluble protein) without requiring a prior theoretical model

Method & material:: After transforming the rpET28a plasmid into the host (E. coli BL21 (DE3)) by using the heat shock method, the expression of the diabody was performed under different conditions based on the Bocks-Behnken design. Then, cell lysis was carried out by sonication and the soluble samples obtained using centrifugation. The samples were analyzed by SDS-PAGE electrophoresis and the intensity of the band of interest (55 kDa) was determined by the gel analyzer software. Then, the protein was expressed under the optimal conditions based on the data from Design Expert software and the soluble fraction of protein was purified by nickel column (native conditions). After that, the sample was dialyzed and labeled with FITC dye and its binding activity to target cells was determined by flow cytometery

Result:: The best expression conditions from 45 runs designed by Design Expert software were 30°C, LB medium, 10 hours expression time, and 0.56 mM IPTG. The yeild of soluble protein obtained in these optimal conditions was 760 µg/mL . Flow cytometery results confirmed that this protein was functional.

Conclusion:: This study showed that the culture conditions, including temperature, type of medium, expression time, and IPTG concentration, have a significant impact on the expression of soluble protein in bacterial host; therefore this strategy can be used to increase the expression efficiency of other soluble protein as well.

G-1709

Health Literacy during the Covid-19 Pandemic: A Cross-Sectional Study in West of Iran

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Introduction:: Acne vulgaris is the most common skin condition caused by sebaceous glands and it affects about 50 million people in the United States each year. The disorder mainly affects the face, chest or back. Seborrheic dermatitis is a papulosquamous disorder that occurs in areas rich in sebum from the head, face and trunk. Various studies have shown a high prevalence of psychiatric disorders in patients with skin diseases. In this study, we investigated the prevalence of anxiety symptoms in patients with Acne vulgaris and Seborrheic dermatitis.

Method & material:: The present case-control study was performed to study the prevalence of anxiety symptoms in patients with Acne vulgaris and Seborrheic dermatitis referred to the dermatology clinic of Imam Khomeini Hospital in Ilam-Iran in 2020. Anxiety symptoms in these patients were assessed using a pre-prepared questionnaire based on the Beck Anxiety Inventory psychological test. data were analyzed by SPSS version 22.

Result:: The mean total score of anxiety symptoms was 13.34±8.72 which was 13.61±8.72 in the patient group and 13.07±8.72 in the control group. The results showed that 68% and 64% of the women in the study had acne and dermatitis, respectively. the mean score of anxiety in women with acne was 15.04 and dermatitis was 14.76. The prevalence of severe anxiety symptoms was higher in patients with Seborrheic dermatitis than in patients with Acne vulgaris. The highest percentage of severe anxiety symptoms was reported in women more than men in all three groups. The rate of severe anxiety symptoms in control group and patients with Seborrheic dermatitis was higher than patients with Acne vulgaris.

Conclusion:: The results of the study showed that the symptoms of anxiety in Seborrheic dermatitis patients are more than patients with Acne vulgaris and in terms of the severity of anxiety in the patient and control groups, similar results were reported. Anxiety symptoms were more common in women and increased with age.

G-1710

The effects of three types of bariatric techniques on lipid indices in patients with hyperlipidemia: a 6-month follow-up

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Introduction: Hyperlipidemia is an important risk factor for cardiovascular diseases. Various solutions have been recommended to improve the condition of hyperlipidemia. In this context, in addition to weight loss, bariatric surgeries can improve metabolic status. The present study was conducted to compare the effect of three types of bariatric techniques on metabolic indices in patients with hyperlipidemia.

Method & material: In this retrospective cohort study, 199 patients with hyperglycemia with a triglyceride level of more than 150 mg/dL who underwent three types of bariatric techniques including sleeve gastrectomy (SG) Roux-en-Y Gastric Bypass (RYGB) and One-Anastomosis Gastric Bypass (OAGB) were investigated. People's height and weight were measured and body mass index was calculated. Fasting blood sugar, cholesterol, triglyceride, LDL and HDL levels were measured before bariatric surgery and six months after bariatric surgery. Cardiometabolic indices including glucose-triglyceride index (TyG), glucose-triglyceride index-body mass index (TyG-BMI), Castelli risk index 1 (CRI-1) and Castelli risk index 2 (CRI-2) through the calculation formula became.

Result: SG surgery caused a significant decrease in the level of TyG indices (1.0±31.41), TyG-BMI (150.28±38.21) and CRI-1 (0.10±50.68). RYGB surgery caused a significant decrease in TyG (1.0±21.41), TyG-BMI (162.32±37.61) and CRI-1 (0.1±55.16) indices. OAGB surgery caused a significant decrease in the level of TyG indices (1.0±22.39), TyG-BMI (153.28±70.64), CRI-1 (0.1±77.49) and CRI- 2 (0.1±32.08). Comparison between three types of bariatric surgery techniques showed a reduction in TyG (P=0.27), TyG-BMI (P=0.10), CRI-1 (P=0.57) and CRI-2 (P=0.40) indices. P=0) are not significantly different from each other.

Conclusion: The findings of the present study showed that three types of bariatric surgery techniques can improve lipid indices in patients with hyperlipidemia. On the other hand, there is no significant difference between the type of bariatric surgery technique in this field.

G-1711

Statin intensity and adherence are independent determinants of major adverse cardiovascular events; a polypill study on post-STEMI patients

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Introduction:: Statins are among the secondary preventive cardiovascular medications that adherence is critical to their effectiveness. Although, the management of cardiovascular diseases emphasizes both intensity and patient adherence, observations show that statin adherence and intensity are not adequate. This study aimed to measure statin intensity and adherence in post- ST elevated Myocardial infarction (MI) patients and its association with major adverse cardiovascular events (MACE).

Method & material:: Of 867 patients in the ST-elevated Myocardial infarction (MI) in the Polypill study, 549 individuals had data on the intensity of statin therapy. 455 of these patients tend to fill out adherence questionnaire. Morisky Medication Adherence questionnaire and a checklist consisting of Potential adherence, and intensity-associated factors were filled out.

Result:: In the age group of 50-70 years, increasing age (p=0.014), receiving physicians support on the consequences of statin discontinuation (p=0.019), and taking lower number of medications (p=0.045) were significantly associated with statin adherence. Besides, the experience of side effects (p=0.028) and depressed mood (p≤0.0001) were negatively associated with adherence. None of the measured factors were associated with statin intensity. Statin adherence and statin intensity affect MACE independently that even after being fully adjusted, the chance of experiencing MACE increases by 8% (95% CI = 1.02, 1.20) for low-statin adherents and 12% (1.04, 1.28) for patients on non-high statin intensity.

Conclusion:: Statins have significant a role in the prediction of MACE, based on their intensity and adherence. Given the importance of statins in patients with CVDs, more attempts are suggested to enhance patients' adherence to statin treatment.

G-1712

Effect of Artificial Intelligence on the Future of Health Research

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Introduction:: Artificial Intelligence (AI) is rapidly revolutionizing various fields, including healthcare. With the ability to analyze vast amounts of data and identify patterns, AI has the potential to transform health research by enabling faster and more accurate diagnoses, predicting disease outbreaks, and identifying effective treatments. This paper aims to investigate the effect of AI on the future of health research.

Method & material:: A comprehensive review of existing literature was conducted to explore the impact of AI on health research. Several databases (e.g., MEDLINE, EMBASE, and Google Scholar) were searched to find relevant articles. The search was conducted on 2023. Both forward and backward reference lists were checked to find further studies. The keywords used for the search were artificial intelligence , healthcare , research and future . The extracted data were synthesized following the narrative approach and results were represented with appropriate figures and tables.

Result:: The use of AI in healthcare research has both advantages and challenges. AI tools such as machine learning algorithms can rapidly analyze large datasets and detect subtle patterns that may not be visible to the human eye. This can lead to faster and more accurate diagnoses, personalized treatment plans, and improved patient outcomes. Additionally, AI can help identify new drug targets and optimize clinical trials, leading to more efficient drug development processes. However, the integration of AI into health research also poses several challenges, including privacy concerns, bias in algorithmic decision-making, and the need for skilled professionals to manage and interpret the data.

Conclusion:: In conclusion, AI has the potential to revolutionize health research by enabling faster and more accurate diagnoses, predicting disease outbreaks, and identifying effective treatments. However, its integration into healthcare also presents certain challenges that need to be addressed to ensure the ethical and responsible use of AI in health research. It is essential that researchers and policymakers work together to establish guidelines and protocols for the use of AI in healthcare research to protect patient privacy and prevent algorithmic biases.

G-1714

Reviewing the impact of men participation in prenatal and delivery care: a review article

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Introduction:: Pregnancy is considered one of the important, critical and at the same time glorious periods in the life of every woman, and the physical, mental and psychological health of a woman during this period has significant effects on the health of the fetus, success in natural childbirth and breastfeeding, and supports Men from women during pregnancy and their participation in childbirth processes can help in this matter. Therefore, the current review study was conducted by examining the impact of men's participation in prenatal and delivery care.

Method & material:: In this review, articles in both Farsi and English languages were searched through Google Scholar Pubmed, Magiran, Scopus, SID databases, with the keywords of men and pregnancy care, participation, pregnant women and their Latin equivalents.

Result:: The review of studies showed that men's participation in prenatal care has beneficial effects such as consolidating marital relations, better understanding of pregnancy and childbirth problems, reducing pregnancy complications and childbirth pain, increasing men's responsibility, positive effects on child health, and increasing health behaviors. It is done by women. Fathers who participate in pre-pregnancy care and provide emotional and psychological support to their wives, reduce anxiety and fatigue of mothers during pregnancy and childbirth. Among the other benefits of men's participation in the care of pregnant mothers, we can mention the reduction of the number of low birth weight babies and deaths, the creation of a stronger relationship between father and child, the increase of language learning skills and academic success of children, and the improvement of breastfeeding.

Conclusion:: Men's participation is considered as one of the important components in order to empower women in promoting reproductive-sexual health. Therefore, in order to familiarize men with different aspects of fertility, strategies for promoting men's participation should be used.

G-1715

Factors affecting lost productivity in patients with covid-19 in Sabzevar city

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Introduction:: COVID-19 is a coronavirus with severe acute respiratory symptoms that has caused significant risks. One of the main undesirable economic consequences of a disease like COVID-19 can be the loss of productivity due to the absence of sick employees from the workplace. Therefore, this study was conducted with the aim of estimating the cost of lost productivity due to absenteeism in COVID-19 patients and the influencing factors in Sabzevar County.

Method & material:: This study was a partial economic evaluation conducted cross-sectionally and included all hospitalized patients (10,406 cases) in the educational, research, and treatment center of Sabzevar County between February 2020 and March 2022. The data were extracted from the Hospital Information System (HIS). The cost of lost productivity was evaluated based on the human capital approach. The data were analyzed using STATA version 16 and Microsoft EXCEL 2016.

Result:: The mean age of the patients was reported as 79.57 ± 93.17. The cost of lost productivity for patients was 513,688 Iranian Rials. Regression model findings showed that changing patients from male to female increased the average costs of lost productivity by 2% (β = 0.021, P = 0.005). The use of special insurances for certain occupational groups and supplementary insurances compared to medical services insurance resulted in an 11% reduction in costs (β = -0.114, P = 0.005). There was an inverse relationship between the age of patients and the costs of lost productivity due to absenteeism caused by COVID-19 (β = -0.009, P = 0.005). There was a direct relationship between the length of hospitalization and the costs of lost productivity (β = 0.108, P = 0.000). After the first peak of the coronavirus and during the second peak, the costs of lost productivity increased by 4%. However,

Conclusion:: COVID-19 imposes a significant financial burden on people, healthcare systems, and the overall economy of the country. The increase in disease costs during the second peak due to the overlap with summer vacations indicates that policymakers did not pay particular attention to prevention programs and social restrictions. Since the economic burden of this disease significantly increases with its infectiousness, the National Crisis Management Headquarters should pay more attention to the development and implementation of appropriate preventive programs in future epidemics.

G-1716

The Effects of Different Sports and Exercises on Serum Levels of Adipokines: A Systematic Review and Meta-Analysis Focused on Apelin, Omentin, Chemerin, Visfatin, and Adipolin

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Introduction:: Adipokines are a group of cytokines secreted by adipose tissue that play important roles in regulating metabolism and inflammation. Dysregulation of adipokines has been linked to the development of various metabolic disorders, including obesity, type 2 diabetes, and cardiovascular disease. This study aimed to conduct a systematic review and meta-analysis of the effects of different sports and exercise on serum levels of Apelin, Omentin, Chemerin, Visfatin, and Adipolin.

Method & material:: We conducted a systematic search of databases, including PubMed, Embase, Web of Science, and Scopus, using the following keywords: workout, exercise, training, Apelin, Omentin, Visfatin, Adipolin, and Chemerin. We included randomized controlled trials (RCTs) and non-randomized studies published between January 2013 and April 2023, using predefined inclusion and exclusion criteria. We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to conduct the systematic review and meta-analysis. The quality of the studies was assessed using the Cochrane Risk of Bias tool and the Newcastle-Ottawa Scale.

Result:: We included 47 studies (18 RCTs and 29 non-randomized studies) involving 2536 participants in the meta-analysis. The results showed that different types of sports and exercise had significant effects on serum levels of Apelin, Omentin, Chemerin, Visfatin, and Adipolin. Resistance training was associated with increased levels of Apelin, Omentin, and Adipolin, while endurance training was associated with increased levels of Visfatin. Team sports and high-intensity interval training were associated with increased levels of Chemerin. Additionally, aerobic exercise was associated with increased levels of Adipolin, while resistance training was associated with decreased levels of Chemerin.

Conclusion:: Our systematic review and meta-analysis suggest that different types of sports and exercise can have significant effects on serum levels of Adipokines such as Apelin, Omentin, Chemerin, Visfatin, and Adipolin. These findings have important implications for the development of exercise programs aimed at improving metabolic health. However, due to the limited number of studies and the heterogeneity of the included studies, further research is needed to confirm these findings. Future research could explore the potential clinical implications of these findings and investigate the underlying mechanisms that mediate the effects of different types of exercise on adipokine levels.

G-1717

Comparing the effect of Osteofix Barij cream® and Diclophenac ointment in patients with knee osteoarthritis

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Introduction:: Osteoarthritis is a common type of arthritis often affects the knee and in the early stages, it will lead to mild symptoms. The use of local painkillers such as diclofenac ointment has had relatively acceptable results in controlling the pain of patients with minor complications. In this study, the effect of herbal and traditional combination of Osteofix® cream (containing essential oils of lavender, rosemary, peppermint, eucalyptus and ostrich oil) on the treatment of joint pain was investigated.

Method & material:: This study was conducted on 98 patients with osteoarthritis who referred to the specialist office of the project manager. one group received Osteofix® cream made by Barij Essence pharmaceutical company and the second group received diclofenac ointment. We assessed pain level based on the WOMAC questionnaire. The changes in pain intensity and disease symptoms over time were investigated and compared in two groups.

(IRCTID: IRCT20220512054829N3)

Result:: There was no significant relationship between demographic factors including gender, occupation, education, history of treatment, disease grade and patients age with the studied groups. There was no significant difference between two treatment groups in WOMAC scale at the beginning of the study. In the Osteofix cream group, the average score of the disease symptoms subscale before treatment was 55.7, which reached 68.8 after two weeks of treatment and 71.9 after one month. In terms of all subscales and the total score of the WOMAC criterion, a significant increase was seen after two weeks and one month of treatment (P0.01). In the diclofenac cream group, the average score of the disease symptoms subscale before treatment was 60.9, which reached 68.7 after two weeks of treatment and 69.4 after one month. In terms of all subscales and the total score of the WOMAC criterion, a significant increase was seen after two weeks

Conclusion:: After two weeks of treatment, there was no significant difference in the increase in the subscale score of disease symptoms between the two groups, but statistically, there was a significant difference between two groups in reducing the severity of osteoarthritis symptoms after one month, and the Osteofix® group had better results. Changes in the severity score of osteoarthritis symptoms over time were not the same in the two groups, and the Osteofix® group was superior in this regard.

G-1718

The effect of a thyme–ivy fluid extract combination on the severity of cough in children

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Introduction:: Cough is one symptom of respiratory diseases in children and adults, with upper respiratory tract infections and acute bronchitis being the most prevalent causes. Thyme and ivy leaves contain anti-inflammatory, mucolytic, and bronchospasmolytic properties, resulting in anti-cough benefits. There are no extensive studies conducted on the efficacy of thyme and ivy in children with acute cough. The purpose of the study was to investigate the efficiency and safety of thyme and ivy in reducing the severity of cough in children.

Method & material:: This study was a randomized, controlled, double-blind clinical experiment on children aged 1 to 12 years' old who had an acute cough with no identified etiology. One hundred and forty-two patients were randomly assigned to dextromethorphan or herbal groups, and frequency and severity were measured using a visual analog scale. After the initiation of therapy, recovery trends were assessed at 24, 48, and 96 hours. T-test and Chi-square were used to test for statistical significance, and repeated measures analysis of variance was used for multivariate analysis.

Result:: Eighty-three patients, including 43 patients in the dextromethorphan group and 40 in the herbal group, were followed for 96 hours. Cough severity was decreased by 80.7% in the dextromethorphan group and 87.4% in the herbal syrup group. In addition, there was a significant interaction effect of time and groups on changes in cough severity. In the groups of dextromethorphan and herbal after 96 hours of complete treatment, the efficacy was 72.1% and 75%, respectively, which showed the beneficial effects of both drugs.

Conclusion:: In children, a mixture of thyme and ivy extracts can help to reduce the severity and length of the cough. As a result, this combination has the potential to be an effective cough therapy for children.

G-1719

The effect of mobile phone-based support interventions on women mental health after abortion

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Introduction:: Abortion is regarded as a challenging and distressing experience, raising awareness of its psychological effects in addition to its physical ones. Women who terminate their pregnancies for reasons like maintaining their health or fetus abnormalities endure grief over the death of a fetus; therefore, they require counseling, support, and bereavement care. Numerous forms of supportive care can be given to women in this way, thanks to the development of technology and mobile phone applications in the field of mental health.

Method & material:: The current study was carried out as a review and by research in easily accessed databases, such as Google Scholar, PubMed, and ProQuest, throughout the last few years.

Result:: Mobile phone applications have been encouraged in the field of mental health as a result of the increased usage of technology over the past ten years. Mobile health solutions have the ability to help both individual patients and the healthcare system at the same time. Utilizing mobile health apps could decentralize patient care and give patients more control over their own care. Additionally, it makes people more aware of their surroundings and promotes better health. These programs can serve as a medicine to lessen the powerful feelings experienced before and after childbirth, which increases the need for prompt communication with experts and specialized guidance. A few people care. Given that supporting care may be strengthened and scaled up globally with the use of digital health, the combination of supportive care and digital care models becomes more important as it can move universal health coverage towards a more equitable state.

Conclusion:: Using mobile phone-based applications presents a special chance to offer post-abortion supportive care to women, which can help to successfully expand this treatment and decrease disparities in healthcare. Continuous monitoring can enhance the standard of treatment and feedback, reduce hospital stays, lower medical expenses, and enable patients to obtain better health outcomes by receiving services.

G-1720

Machine Learning Approaches for Predicting Drug Response in Hypertension : A Systematic Review

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Introduction:: Despite the different types of medications for hypertension, choosing the most suitable medication is still an important issue among health care professionals. Exploring the individual variations and finding the best choice of medication for each individual could be a solution in this regard. Recently, Artificial Intelligence (AI) approaches, especially machine learning algorithms, have gained many attractions by finding the intra patient varieties, thus it seems using this concept could help clinicians for better drug response predictions. This study evaluates machine learning (ML) algorithms which have been used regarding drug response prediction for hypertension pharmacotherapy.

Method & material:: Based on the PRISMA guideline we searched on PubMed, Google Scholar and Scopus databases from 2000 To 2023 According to our inclusion criteria, we used keywords including hypertension, drug response, pharmacotherapy, and personalized medicine as well as machine learning and artificial intelligence. In addition, eligible studies selected by two experts and other studies which didn't meet inclusion criteria were excluded.

Result:: The 11 final eligible studies used several datasets for their model training including demographic features, blood pressure records, blood test parameters, laboratory tests, medical history, in use medications, and lifestyle information. In addition, several machine learning (ML) techniques have been employed in these investigations, encompassing both supervised and unsupervised learning methods in brief seven articles have utilized regression algorithms, such as support vector regression and random forests and three papers have employed classification methods such as support vector machines and deep learning as supervised learning methods. Furthermore, one study used K-means clustering as the unsupervised method, in order to recognize the drug response patterns.

Conclusion:: Artificial intelligence can be highly beneficial in the field of drug treatment and personalized medicine. ML algorithms are capable of examining vast sets of patient information such as genetic data as well as patient's medical history to assist healthcare providers in creating drug treatment plans for individual patients. Totally there are several limitations in these studies which are related to the input datasets as well as the utilized training models which could affect the accuracy of the prediction. Therefore, by recognizing the potential limitations of each model and monitoring for the more appropriate dataset we can overcome the drawbacks in order to maintain a well accurate drug prediction.

G-1721

Comparison of care pressure on home caregivers and health volunteers in patients with covid-19

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Introduction:: During the covid-19 epidemic, along with home caregivers, health volunteers also provided care to patients with covid-19 as informal caregivers. Although, in general, all informal caregivers of patients with Covid-19 face many challenges, the pressure of caring for them can be different. For this purpose, the present study was conducted with the aim of determining the comparison of care pressure on home caregivers and health volunteers in patients with covid-19.

Method & material:: The present study is a cross-sectional descriptive study that was conducted in Mashhad in 2019. The researched community in this study consists of informal caregivers (192 home caregivers, 192 health volunteers) of patients with Covid-19 in Mashhad. The study samples were included in the study using available sampling method. Data collection tools: The research tools included demographic and cognitive information checklist and Novak and Gast (1989) care pressure questionnaire. Data were analyzed using SPSS version 25 statistical software and Mann-Whitney, Chi-square, and Spearman's correlation coefficient tests.

Result:: In this study, 354 people were included in the study, of which 201 people (52.3%) were women and 153 people (47.7%) were men. The mean and standard deviation of the age of volunteer and home caregivers were 29.92 ± 6.76 and 32.73 ± 8.04 years, respectively. The mean and standard deviation of care pressure scores in home caregivers and health volunteers were 80.63 ± 12.62 and 72.17 ± 16.71, respectively. According to the Mann-Whitney test, the difference between the mean and the standard deviation of the total care pressure score and other dimensions in home caregivers and health volunteers was significant (p0.05). There is a direct and significant relationship between the care pressure scores of volunteer and home caregivers with the number of patient care days and patient care hours per day (P0.05).

Conclusion:: The results showed that caregiving pressure is higher in home caregivers than health volunteers, which indicates a warning for mental health policy makers; Therefore, health care managers should consider programs and measures to reduce the care burden of all caregivers of Covid-19 patients, especially home caregivers.

G-1723

Application of aptamer in detection of prostate cancer: a systematic review

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Introduction:: Prostate cancer is the second most common cancer in the world and the fifth leading cause of cancer death in men. Many advanced prostatic cancer patients suffer due to a lack of effective diagnostic and treatment methods. Therefore, the use of new diagnostic and therapeutic strategies seems more than necessary. Since the screening methods are not sufficient for diagnosis and treatment follow-up for prostate cancer, using alternative methods with high specificity has been noticed. One of the very new methods is the use of aptamers for cancer diagnosis and treatment. this study aimed to investigate the use of aptamer in the detection and treatment of prostate cancer.

Method & material:: This study is a systematic review, which was obtained through searching in reliable data sources including Google Scholar, Cochrane, Scopus, and PubMed using keywords "prostate cancer, aptamer, treatment, diagnosis" in the period of 2018-2023. After searching and extracting information, related articles were categorized. Then the required data was extracted and finally analyzed.

Result:: Among the 46 extracted articles, 34 articles were selected, and finally, 10 most related articles were chosen. Aptamers are a class of artificial oligonucleotides that are synthesized in laboratory conditions and are able to bind to a target specifically with high affinity. Because prostate cancer cells have specific surface molecules that are overexpressed and altered, aptamers bind to PSA [prostate-specific antigen] with high affinity through the SELEX process in prostate cancer and exert their diagnostic and therapeutic effects through signaling pathways inside cancer cells or communication between cancer cells. Therefore, they are considered therapeutic and diagnostic agents.

Conclusion:: Although few studies have been conducted in introducing special aptamers for the diagnosis and treatment of prostate cancer, these few studies can pave the way for the diagnosis and discovery of special aptamers for prostate cancer. In this review, the use of aptamers in the detection and treatment of colorectal cancer has been investigated.

G-1724

Secretome of mesenchymal stem cells derived from adipose can be used as an attractive option for regenerative medicine of breast

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Introduction:: Mesenchymal stem cells (MSCs) show their functions through cell-to-cell contact and their secretome. The tumorigenic and antitumorigenic effects of MSCs are controversial. In this study we investigated the effects of adipose MSC (AMSC) derived secretome on MCF-7 and MDA-MB-231.

Method & material:: After isolation, expansion and characterization of hAMSCs, MCF-7 and MDA-MB-231 cell lines were treated with AMSCs secretome. Viability, proliferation rate, and migration were performed to show the effects of secretome on breast cancer cells.

Result:: Secretome markedly inhibited the viability of MCF-7 and MDA-MB-231 cells. MCF-7 and MDA-MB-231 cells display decreased proliferation rate after co-treated with secretome. Scratch healing test showed that secretome decreased the speed of the migration in MDA-MB-231 cells.

Conclusion:: Our data show hAMSCs secretome has anti-tumor effects on breast cancer cells and can be suggested as a therapeutic strategy to suppress tumor progression. Administration of secretome of MSC may be a safe and novel regenerative approach for breast reconstruction following removal of breast mass with notumor recurrence risk.

G-1725

The Relationship between Health Literacy and General Health in Patients with COVID-19

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Introduction:: The most effective strategy to prevent the spread of coronavirus disease is infection prevention and control. Raising awareness amongst the general public is considered one of the effective ways to achieve this goal. This study aimed to investigate the relationship between health literacy and general health in patients with COVID-19.

Method & material:: An analytical cross-sectional study was performed on 432 people in 2021. The study participants were selected by using convenience sampling. Of the participants, 185 had COVID-19 based on diagnostic criteria, patients who had recovered in the past month, and 247 had a negative COVID-19 test result according to the diagnostic criteria. They filled out both the HELIA (the Health Literacy for Iranian Adults) questionnaire and the General Health Questionnaire–28(GHQ-28) in person using the Porsline platform. The t-test, Pearson's correlation coefficient, and Spearman's correlation coefficient were employed to analyze the collected data. All statistical analysis was carried out using SPSS version 16.

Result:: The results showed that only 2.30% of the study participants had insufficient health literacy, and only 3% of them had poor general health status. Also, no statistically significant difference was observed between people who were infected with COVID-19 and those who were not infected in terms of the scores of the dimensions of health literacy (p0.05). However, a statistically significant difference was found between people who were infected with COVID-19 and those who were not infected concerning the general health total score (p=0.005).

Conclusion:: False confidence due to better general health in sufferers may lead to an increase in the incidence of COVID-19 in people with better general health. Therefore, it is necessary to provide information and increase health literacy in situations of highly contagious infectious diseases like COVID-19.

G-1728

The correlation of some socio-economic indicators with Covid-19 vaccination coverage in the world: An ecological study

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Introduction:: COVID -19 vaccination is essential for controlling this pandemic. Many countries have begun COVID -19 vaccination in December 2020. This study aimed to calculate the correlation between the Human Development Index (HDI) and COVID-19 vaccination coverage.

Method & material:: In this ecological study for data collection a data set was prepared, which included COVID-19 vaccination coverage, HDI, and its components (Life expectancy at birth, mean years of schooling, and Gross National Income per capita), and income for 130 countries. Association between COVID-19 vaccination coverage, HDI, and its components estimated using correlation coefficients. Also, the scatter plots of the HDI and vaccination coverage were drawn according to countries income.

Result:: There was a very strong positive correlation between COVID-19 vaccination coverage with HDI (r=0.86, p0.001) and life expectancy at birth (r=0.84, p0.001), and there was also a strong correlation with mean years of schooling (r=0.74, p0.001) and Gross National Income (r=0.73, p0.001). When countries were stratified by income level, these correlations were stronger for the lower middle income and upper middle-income countries, than for low income and high-income countries.

Conclusion:: The HDI and its components was positively correlated with COVID-19 vaccination coverage. Governments should facilitate COVID-19 vaccination strategies especially in low-income countries.

G-1729

The importance of hub genes as biomarkers in prognosis and diagnosis monitoring of colorectal cancer

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Introduction:: Genome sequencing and high-throughput data have been used to pinpoint the genes constituting the intracellular signaling networks and governing biological processes. Tumors of the digestive system, known as gastrointestinal neoplasms, are multi-stage processes that develop under biological and environmental conditions that are carcinogenic and mutagenic. Although text mining and artificial intelligence survey displayed environmental agents, familial history, genetic factors, and inflammation as potential contributors to gastrointestinal damage, colorectal cancer pathogenesis has not yet been fully comprehended. Hence, comprehending the pathomechanism and marking hub genes involved in colorectal cancer susceptibility can supply new perspicuity into prognosis, diagnosis, and therapeutic strategies.

Method & material:: According to recent findings, gastrointestinal cancer susceptibility is associated with more than 50 genetic regions in the human genome. Microarray data and protein-protein interactions network analysis might identify genes and proteins having the highest consequence during pathogenesis by analyzing the network's parameters such as degree, betweenness centrality, closeness centrality, and eigenvector.

Result:: Bioinformatics analysis revealed TLR4, IL17a, NFκB, IL6, IL1β, STAT4, and NLRP3, are vital hub genes in gastrointestinal neoplasms.

Conclusion:: The combined large-scale data screening suggests potential diagnostic and prognostic biomolecular signatures through RNA-based biomarkers as personalized diagnostic panels. In addition, differential expression of genes in cancer states compared with health conditions may propose prospective molecular genetics markers.

G-1730

Comparison of three types of obesity techniques on atherogenic indices in patients with hypercholesterolemia: a retrospective cohort study

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Introduction:: Hypercholesterolemia or high blood cholesterol level is the main cause of atherosclerosis and cardiovascular diseases. In previous studies, it has been suggested that interventions related to weight loss can improve the condition of vascular indicators. The aim of this study is to investigate and compare the effects of three types of obesity-related surgeries on the status of atherogenic indicators in patients with hypercholesterolemia

Method & material:: The current study is a retrospective cohort study on 219 patients (167 women and 52 men) with hypercholesterolemia with a cholesterol level of more than 200 mg/dL who underwent three types of bariatric surgery including sleeve gastrectomy (SG), Roux- en-Y Gastric Bypass (RYGB) and One-Anastomosis Gastric Bypass (OAGB) were performed. Blood samples were taken from all subjects after 12 hours of fasting and in the early morning. Blood samples were centrifuged and cholesterol, triglyceride, LDL and HDL levels were measured in two time periods before surgery and six months after surgery. Atherogenic indices including plasma atherogenic index, atherogenic index and coefficient were calculated through the formula

Result:: SG surgery caused a significant decrease in cholesterol level (37.20±31.64), plasma atherogenic index (0.15±0.18) and atherogenic coefficient (0.73±1.59). RYGB surgery caused a significant decrease in cholesterol level (31.18±41.38), plasma atherogenic index (0.18±0.15) and atherogenic coefficient (0.86±1.09). OAGB surgery caused a significant decrease in cholesterol level (21.50±33.45), plasma atherogenic index (0.18±0.20) and atherogenic coefficient (0.65±1.56). Among the three surgical methods, only the SG surgical method caused a significant decrease in LDL level (8.94±33.71). The comparison between the three surgical methods showed that the effect of the SG surgical method on reducing the cholesterol level is greater than that of the OAGB surgical method (P=0.003)

Conclusion:: The findings of the present study showed that three types of bariatric surgery techniques can improve atherogenicity indices in patients with hypercholesterolemia. On the other hand, among the three types of bariatric surgery techniques, the gastric sleeve method seems to have more effects in this field in hypercholesterolemia patients

G-1732

Effects of zinc intake on anxiety: A Systematic Review

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Introduction:: Anxiety is the most common group of mental disorders that is characterized by cognitive symptoms of excessive worry and might be associated with physiological symptoms such as muscle tension and insomnia. Zinc is a cofactor for some enzymes involved in the production of psychological hormones. However, the influence of zinc supplementation on psychological disorders is not clear. In addition, findings from the previous randomized controlled trials (RCTs) investigating the effect of zinc on anxiety are inconsistent. Hence, the current systematic review was conducted to assess available findings on the effect of zinc supplementation on anxiety symptoms.

Method & material:: In this study, the online databases of PubMed, Scopus, ISI Web of Science were systematically searched. This study was conducted without publication age or gender restrictions and No restriction was considered at the time of publication and articles' language. Also, the reference lists of relevant articles were screened. The search was done by two independent researchers. The risk of bias of included RCTs was done using Cochrane tool.

Result:: In total, 4 RCTs were included. These studies included 765 participants (374 In the zinc group and 391 in the control group). Of the 4 studies, 3 articles showed that zinc supplementation could reduce the score of anxiety. However, 1 article did not find any significant association. Most studies included in the current systematic review had high quality based on the Cochrane tool.

Conclusion:: The results of this study determined that Getting enough zinc can help reduce anxiety in people. Zinc is beneficial for the anxiety but to obtain the results of the study, it is better to use more and better quality RCT studies.

G-1735

Investigating the diagnosis index during smear-positive pulmonary tuberculosis in the network system in 2021-2016

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Introduction: Pulmonary tuberculosis is a contagious infectious disease that, if left untreated, can infect 10 to 14 individuals during its contagious period. Early diagnosis and treatment of the disease can be considered as one of the most important preventive measures against tuberculosis. Therefore, the present study aims to determine the diagnostic index for early detection of smear-positive pulmonary tuberculosis in the Health system in the years 2016- 2021.

Method & material: The present study was a historical cohort study conducted on 209 individuals with tuberculosis in Shushtar county. Periodic follow-ups were performed throughout the duration of the disease. After extracting the data from the online TB Register software, information such as demographic data, results of initial smear tests, diagnostic methods, patient referrals, and treatment success indicators were extracted from electronic patient files. The data were then entered into SPSS version 22 software for analysis.

Result:: The median age of the patients was 34 years. Among these individuals, 71.3% were male and 28.7% were female. 86.1% of the patients were diagnosed with pulmonary tuberculosis, and 47.8% were classified as +2 and +3 levels of severity. Only 24.4% of them were identified through the primary healthcare units, while the rest were identified by private clinics and the healthcare system. Treatment results were not successful for 19.7% of these patients. A mortality rate of 5.8% due to tuberculosis, treatment default rate of 4.8%, and treatment failure rate of 8.7% were reported.

Conclusion: Since it is expected that this disease occurs more frequently in older individuals, the lower median age of the patients suggests late diagnosis of the disease. It seems that the disease is actively spreading in the community, and most diagnosed cases have been hospitalized and are under treatment. Therefore, it is recommended to actively and purposefully carry out disease screening in high-risk groups.

G-1736

Evaluation and comparison of arsenic and selenium levels in mothers with and without history of Miscarriage in Shahrekord cohort study population

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Introduction:: Miscarriage is the most common complication during pregnancy (before the 20th week). Various factors such as age, genetic factors, anatomical problems of the uterus, immunological factors, as well as environmental factors such as heavy metals and harmful rays can be involved in causing this condition. Also, the importance of micronutrients starts from the beginning of the human life cycle and continues in its various stages. The amount of these micronutrients is also considered as one of the factors that may play a role in causing miscarriage during pregnancy. Selenium is one of the most important micronutrients and essential elements for the body. One of the problems involved in this threatening category is abortion, which is related to several factors, including the concentration of some heavy metals and environmental exposures. Also, considering the protective and important role of selenium in human health and the adverse effects of heavy metals in human

Method & material:: health, especially during pregnancy, this study was conducted in order to investigate the amount of arsenic and selenium in the biological samples of mothers with miscarriages and compare it with the obtained results.

method:

This research is a case-control study based on Shahrekord cohort study population, where 60 case group (with history of abortion) and 60 control group (without history of abortion) were randomly selected from the population of Shahrekord cohort women. Women's whole blood was tested for arsenic and selenium variables. To measure the heavy metals in this study, a device (AA240 VARIAN) was used in the Faculty of Health, Shahrekord University of Medical Sciences.The project was reviewed and approved by the Ethics Committee of Shahrekord University of Medical Sciences (permission No: IR.SKUMS.REC.1400.093).

Result:: Based on the average values and standard deviation, the comparison between metals in the blood samples of people was calculated. The data were analyzed with descriptive statistics and analytical statistics and with Stata software. Depending on the distribution of data and type of variables, independent t-tests, analysis of variance (ANOVA), correlation coefficient, chi-score were used to compare data.

Conclusion:: According to the obtained results, the average concentration of heavy metals such as arsenic in the group of women with a history of abortion (case) is significantly higher than the concentration of these elements in the group of women without a history of abortion (control). Also, the average concentration of metals Essential like selenium was obtained more in the group of women without a history of abortion (control) than in the case group, which indicates the protective and preventive role of selenium in abortion and increasing the fertility rate in societies.

G-1737

Empowering Middle–Aged Women: Exploring the Impact of Education on Promoting Behavior for Clinical Breast Examination

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Introduction:: Breast cancer poses a significant health challenge, particularly in developing nations. The implementation of screening programs and early detection strategies is crucial in combating this disease, with clinical breast examination serving as a valuable screening method. Recognizing the vital role of education in disease prevention, this research endeavors to assess the impact of educational intervention on enhancing middle-aged women's engagement in clinical breast examination practices.

Method & material:: A semi-experimental study was carried out in 2019 on 120 women aged 30-59, who visited the comprehensive health centers in Neyshabur city. The method of sampling involved a multi-stage cluster design at the center level, with 60 women assigned randomly to each group, utilizing the block method. Inclusion criteria encompassed the ability to read and write, active attendance in educational sessions, and having no prior history of breast diseases. Any participants who were absent for more than one session were not considered in the study. Data collection involved the use of a researcher-developed questionnaire, which included demographic information, self-reported knowledge, and behaviors related to clinical breast examination. The educational intervention was designed based on an initial needs assessment specifically tailored for the intervention group. It consisted of five 60-minute sessions. Data were collected immediately after the completion of the educational intervention and again two months later.

Result:: The study included women with an average age of 38.39 years (SD: 7.83). Most of the participants were housewives, and over 90% were married. Around 20% had completed a university education or higher. There was no significant difference between the control and intervention groups regarding referral for clinical breast examination before the educational intervention. More than half of the women in both groups had never undergone clinical breast examination. However, after the intervention, women in the intervention group were significantly more likely than those in the control group to attend regular clinical breast examinations, as measured immediately and two months after the intervention. The difference between the groups was statistically significant ($p<0.05$).

Conclusion:: The results clearly demonstrated the positive impact of education on enhancing the performance of clinical breast examination in the intervention group, as compared to the control group. These findings emphasize the importance of strategic planning and structured implementation of educational programs aimed at improving screening behaviors among women.

G-1739

The Relationship between Protection Motivation and Breast Self-Examination Behavior in Middle-Aged Women

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Introduction:: Breast cancer continues to be a significant health concern worldwide, necessitating the development and implementation of effective early detection and intervention strategies. Regular self-examination of the breasts plays a critical role in this regard, as it empowers women to become actively involved in monitoring their breast health. By routinely examining their own breasts, women can potentially detect any abnormalities or changes at an early stage, facilitating prompt medical intervention and significantly improving treatment outcomes. The primary goal of this study was to explore the association between protection motivation and breast self-examination among women in the middle-aged category.

Method & material:: The present study is a semi-experimental research conducted in 2019, involving the selection of 325 middle-aged women (aged 59-60 years) who visited comprehensive health service centers in Neyshabur city. Eligible participants included women without a history of breast diseases, with a willingness to participate in the study, and possessing literacy. The sampling method employed was a multi-stage cluster approach, whereby various areas of the city were treated as clusters, and women attending each specific comprehensive health service center were randomly chosen. A researcher-designed questionnaire, comprising sections on protection motivation structure, demographic variables, and breast self-examination behavior, was used as the data collection tool. Descriptive tests and ANOVA analyses in SPSS 21 software were utilized for data analysis.

Result:: The study included women with an average age of 37.31 ± 7.32, with over 90% of them being married. Alarmingly, more than half of the participants had not undergone breast self-examination. However, a noteworthy finding emerged, revealing a significant association between protection motivation and the practice of breast self-examination ($p = 0.032$). Specifically, women who regularly performed breast self-examination demonstrated higher protection motivation than those who did not.

Conclusion:: The study highlighted the low participation in breast self-examination among more than half of the women surveyed, emphasizing its importance. It found a strong correlation between regular self-examination and higher levels of protection motivation. To address this, targeted educational programs should be implemented to raise awareness, promote self-examination, and enhance motivation, with a specific focus on married women, underscoring the potential benefits of early detection and protection against breast cancer.

G-1740

Exploring the Effects of Using Virtual Reality (VR) in the Treatment of Parkinson Disease: A systematic review

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Introduction:: Parkinson's disease is a chronic neurological disorder influenced by many factors, including a reduction in the number of brain cells responsible for producing dopamine, an important neurotransmitter that controls movement. This leads to problems such as tremors, muscle stiffness, loss of motor skills and problems with balance. Virtual Reality (VR) is an advanced technology that uses simulation techniques and virtual reality experiences to allow users to operate in a realistic environment. This article examines the impact of using virtual reality in the treatment of Parkinson's disease.

Method & material:: This is a review study done in 2023. The studies were retrieved from the PubMed and Google Scholar databases. The criteria for extracting the studies were "virtual reality," "participation," and "Parkinson's disease . The period covered in this study is from January 2015 to January 2023. 44 articles were extracted, from which 17 key topic articles were selected and reviewed.

Result:: Patients with Parkinson's disease should be encouraged to begin treatment because the disease affects their daily, professional and academic quality of life. By creating realistic simulations, people can experience exercises and movements that help improve motor control and increase muscle strength. According to this study, we found that the use of virtual reality can have the same or even greater effect than traditional therapies in treating Parkinson's patients. When a doctor diagnoses the use of virtual reality, attention should be paid to all details of the disease and the characteristics of the patient.

Conclusion:: Adding virtual reality to a rehabilitation treatment program increases Parkinson's patients' motivation and involvement in the treatment process, resulting in improvements and greater patient satisfaction with treatment.

G-1741

Alcohol, cigarette and IBD; friends or foes? The effect of alcohol consumption and smoking on IBD: A systematic review

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Introduction:: Inflammatory bowel disease (IBD) is a group of diseases that are characterized by chronic inflammation of the gastrointestinal (GI) tract and include Crohn's disease (CD), ulcerative colitis (UC) and microscopic colitis (MC). Although IBD is widely associated with smoking in epidemiological studies, there are conflicting results for the association between IBD and alcohol consumption. We aimed to investigate whether cigarette smoking, and alcohol consumption are associated with either CD, UC or MC and how.

Method & material:: A literature search for relevant studies from inception to 1 December 1978 on PubMed has been done. The decision for inclusion of each study was made independently by two authors (AM and ME). Disagreements about inclusion of studies or extraction of data were resolved by the third author (MMR). Other systematic reviews were manually searched to identify other potentially relevant studies. Searching strategy was ((((((colitis[Title/Abstract]) OR (IBD[Title/Abstract])) OR (Ulcerative colitis[Title/Abstract])) OR (Crohn's disease[Title/Abstract])) OR (microscopic colitis[Title/Abstract])) AND ((smoking[Title/Abstract]) OR (alcohol[Title/Abstract])) AND ((clinical trial[Filter] OR comparative study[Filter] OR observational study[Filter] OR randomized controlled trial[Filter]) AND (humans[Filter]))).

Result:: 225 articles were initially considered. Of these, 20 were included according to the study criteria. 5 studies revealed the association of alcohol consumption and smoking with an increased risk of MC. Past smokers had transient MC whereas current smokers had persistent MC. The results from UC studies seem unclear with 28.5% of studies confirming the association between smoking and increased chance of developing UC, while 28.5% of studies demonstrating the preventing effect of smoking. 14.2% showed no association and 28.5% confirmed the correlation between smoking and UC. 33% of studies showed the aggravating effect of alcohol on UC and 33% denied any relationship between them while 33% showed the preventing effect of alcohol on UC. 25% of studies stated no correlation between alcohol and CD while the rest confirmed the increased chance of developing CD in alcohol consumers. All studies showed an increased rate of CD development in smokers.

Conclusion:: While it is clear that Alcohol intake and smoking increase the chance of developing MC and CD, the association between UC and these 2 risk factors seem unknown. Prospective cohorts are needed to determine the correlation between UC and the 2 risk factors.

G-1742

The relationship between new indices of insulin resistance and the risk of metabolic syndrome in patients with type 2 diabetes mellitus: A cross-sectional study

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Introduction:: Whether new indices of insulin resistance can better identify the risk of metabolic syndrome (MetS) in patients with type 2 diabetes mellitus (T2DM) needs further research. Thus, this study aimed to evaluate these indices in predicting the risk of MetS in patients with T2DM

Method & material:: In this cross-sectional study, 400 patients with T2DM, convenience sampling from the Endocrinology and Metabolism clinic of Golestan Hospital of Ahvaz city in 2023.

New indices of insulin resistance such as triglyceride glucose index (TyG index), modified TyG index (TyG-BMI, TyG-WC, TyG-WHR, TyG-WHtR, and WTI), and metabolic score for insulin resistance (METS-IR).

The criteria of the International Diabetes Federation (IDF) for MetS

Result:: The largest AUCs in both males and females were detected for the TyG-WC index (0.91 and 0.93, respectively).

The smallest AUC was observed for the TyG-BMI equaling 0.77 in males and 0.74 in females.

All indices significantly predicted the risk of MetS in all subjects before and after adjustment.

TyG-WC index presented the highest Odds ratios for MetS (8.06, 95% CI: 5.41-12.00).

Conclusion:: As observed, all novel IR indices predicted the risk of Mets in the present study. The best predictor of MetS in patients with T2DM is was TyG-WC index in both genders.

G-1743

Zingiber officinale and Thymus vulgaris extracts co-loaded nanofibrous mat for tackling infection and wound healing promotion

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Introduction:: Infections are severe complications associated with chronic wounds and tardy healing that should be timely treated to achieve rapid and proper tissue repair. This study aimed to construct a nanofibrous wound dressing composed of polyvinyl alcohol and chitosan containing Thymus vulgaris and Zingiber officinale extracts to inhibit infection and accelerate the wound healing process.

Method & material:: The extracts were loaded into nanofiber by electrospinning method, and their physicochemical characteristics were investigated and measured. The antioxidant, antibacterial activity and release profile of the extracts were also determined. In an animal model of bacterial-induced wounds, healing and closure, inhibition of bacterial growth, and histopathological indicators of the wound site were studied.

Result:: Loading 10 wt.% of the extracts resulted in the formation of nanofibers with nano sacle dimensions (average diameter distribution 382 ± 60) and had a uniform, continuous and defect-free morphology. FTIR analysis confirmed the loading of the extracts without adverse interactions. Also, the results showed extremely high porosity, extraordinary liquid absorption capacity and complete wettability. In addition, ginger-thyme extracts (50:50) showed significant antioxidant activity and their release profile from nanofibers was continuous and sustained for nearly 72 hours. At the same time, ginger-thyme nanofiber had the ability to inhibit the growth of both Gram-positive Staphylococcus aureus and Gram-negative E. coli strains. Wound healing evaluation in the animal model showed that the nanofiber containing ginger-thyme extracts caused the maximum reduction of the wound area, the maximum wound closure, and accelerated skin regeneration. Studies on inhibiting the bacteria growth at the wound site also revealed complete inhibitory effects. In addition, histopathology studies

Conclusion:: Overall, the proposed mat containing ginger-thyme extracts provides multiple therapeutic capabilities with promising solutions for inhibiting wound infection and accelerating the healing process.

G-1744

Artificial cells and their applications in medicine

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Introduction:: An artificial cell is a simplified model of a natural cell that can have the same function as a natural cell. The primary goal of creating artificial cells was to recreate the characteristics of living cells and answer the questions related to the origin of life . The methods of constructing artificial cells, through both top-down and bottom-up approaches, have achieved great progress in the past decades. In bottom-up approach artificial cells are derived from lipids, polymers, lipid/polymer hybrids, metal-organic frameworks, colloidosomes, coacervates, and natural cell membranes. The type of these structures determines the properties of artificial cells, including energy production, cell growth, morphology change, division, membrane transfer, environmental response, motility and chemotaxis. The aim of the present study is a comprehensive review of the structure and development process of artificial cells, their characteristics and application in medical sciences.

Method & material:: In this study, articles related to artificial cells from 2010 to 2023 were collected by searching databases such as PubMed, Scopus, and Web of Science. After classification and screening, we have presented a comprehensive overview of the development of artificial cells and their properties and applications.

Result:: The studies conducted during the last few decades show that the capabilities of encapsulation, membrane transfer, environmental perception and directional movement of artificial cells have provided a solid foundation for the applications of artificial cells in various fields. Also, researchers' achievements in investigating the function of artificial cells such as gene and protein expression, intracellular cascade reactions and intercellular communication have led to the recognition of the use of artificial cells in various medical fields. For example, artificial cells have been used to exchange materials and information, and they can be used as targeted drug delivery systems to target cells. It seems that the special structure of artificial cells has provided a suitable research platform for their employment to perform complex cellular reactions.

Conclusion:: Despite the many advances that have been achieved in the field of artificial cell development and research, it is still in its infancy. It seems that we need more research to perform the complex activities of natural cells by artificial cells so that their results and achievements can be used to support human survival and health.

G-1745

Investigating the effect of telemedicine services on the rehabilitation of autism patients: a systematic review

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Introduction:: Autism is a neurotypical disorder that is associated with problems in social communication, motor skills, limitations in social interactions and the inability to understand emotions and feelings. This disorder is currently one of the most common neurotypical disorders in society. So far, many researches and trials have been conducted and are ongoing for the rehabilitation and treatment of people with autism. One of the ways that has recently received a lot of attention is telemedicine. In this regard, this review study was conducted with the aim of investigating telemedicine services on the rehabilitation of autism patients.

Method & material:: his study was conducted by systematic review method by searching the keywords telemedicine, rehabilitation, autism in Pubmed, SID, Scopus, Sciensce direct, Magiran, Sid, Irandoc and Google Scholar search engine and after applying the entry criteria and 25 articles that were researched in this field between 2017 and 2023 were included in the study.

Result:: Telemedicine services have an important effect on improving the cognitive and communication skills of autism patients and can significantly improve their social and movement abilities. These services are provided remotely and include psychological treatments, movement, speech and cognitive rehabilitation. The use of telemedicine brings the possibility of communicating at the right time and place, access to specialists with expertise in autism without space and time restrictions, increasing the participation and interaction of people with autism in treatment and rehabilitation sessions, and increasing the satisfaction of patients and families. . . The results of these studies show that the use of telemedicine services can significantly improve the quality of life and rehabilitation of autism patients. Telemedicine services are a new method in managing this disease, which helps patients' ability to interact with the world around them by using new technologies such as virtual reality and robotics.

Conclusion:: Considering the positive effect of telemedicine in improving the communication and social cognitive ability of these patients, it is recommended to be used as an effective and innovative solution in the rehabilitation of these patients. Therefore, telemedicine services can help improve motor abilities of autism patients. As a result, further research in this field can improve the best practices and promote telemedicine services through quantitative and qualitative evaluations.

G-1746

Preventing Musculoskeletal Disorders in Computer Users: A Systematic Review of Risk Factors

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Introduction:: The widespread use of computers in the modern era has resulted in a notable increase in musculoskeletal disorders (MSDs) among computer users. These disorders encompass various conditions that impact muscles, bones, tendons, ligaments, and other structures, causing discomfort, pain, and reduced functionality. To tackle this pressing issue, a thorough review of MSDs is essential, aimed at identifying the risk factors involved. This study aims to conduct a systematic review to examine and assess the risk factors associated with musculoskeletal disorders in individuals who use computers.

Method & material:: To conduct this systematic review, an extensive and comprehensive search was performed across various databases, including PubMed, Magiran, Cochrane, SID, and Google Scholar. The search focused on studies published from 2000 to April 2023, using keywords such as musculoskeletal disorders, computer users, Nordic, and prevalence. Additionally, the reference lists of identified articles were examined to identify additional relevant sources. The inclusion criteria encompassed articles with research-related keywords mentioned in the title or abstract, while exclusion criteria were applied to studies unrelated to the topic, duplicates, or those lacking access to the full text. The selected studies underwent a rigorous review process, extracting relevant information for further analysis and finalization.

Result:: Among the 243 studies evaluated, 28 studies were deemed suitable for inclusion in this study. Through a comprehensive review of these diverse studies, it became evident that various factors, including age, smoking habits, unfavorable working conditions, job insecurity, unhealthy work environments, extended daily hours and accumulated years of computer use, high work pressure, reduced ergonomic workstation scores, and high body mass index, are directly linked to an increased risk of developing musculoskeletal disorders.

Conclusion:: Given the complex nature of musculoskeletal disorders in computer users, characterized by the involvement of multiple risk factors, it is imperative to implement comprehensive and multifaceted interventions. By considering and addressing these various risk factors, we can effectively mitigate the occurrence and impact of musculoskeletal disorders, promoting the well-being and long-term health of computer users.

G-1747

Promoting Safe Traffic Behaviors in Adolescents: The Role of Predictive Constructs from the Protection Motivation Theory

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Introduction:: In low-income countries, teenagers face a mortality rate from traffic accidents that is three times higher than their counterparts in high-income countries. Adolescents are considered a vulnerable demographic due to their limited awareness and familiarity with traffic hazards. This study aimed to explore the predictive constructs of the protection motivation theory in promoting safe traffic behaviors among teenagers.

Method & material:: The study was conducted in 2020, utilizing a cross-sectional design, and involved the selection of 140 male high school students from Minodasht city. Eligible participants were required to meet specific criteria, including expressing their willingness to participate, completing a written consent form, and being secondary school students in Minovdasht city. A multi-stage cluster sampling approach was employed, considering schools in different parts of the city as clusters. Subsequently, one high school was randomly chosen from each cluster, resulting in a total of four high schools being included in the study. Data collection involved the use of a researcher-developed questionnaire, which comprised sections focusing on protection motivation constructs, demographic variables, and safe traffic behavior. Descriptive tests and linear regression analysis were conducted using SPSS 21 software to analyze the collected data.

Result:: The study found that the mean age of the participating students was 16.4 ± 8.2. More than half of the students had mothers with an educational level below a diploma. Regarding the predictive power of the constructs from the protection motivation theory, they accounted for 26.5% of the variance in safe behaviors. Among these constructs, fear (0.035), reward (0.004), and motivation (0.012) were identified as the strongest predictors.

Conclusion:: The study findings emphasized the important role of protection motivation theory constructs in comprehending and forecasting safe behaviors among adolescents. Notably, the identified constructs, namely fear, reward, and motivation, exhibited substantial predictive power in this context. These results strongly emphasize the need to address these constructs in interventions that aim to promote safe behaviors among adolescents, offering valuable guidance for effective strategies and initiatives in this area.

G-1749

Exploring the Use of Telemedicine in the Management of Gestational Diabetes in Pregnant Women: A systematic review

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Introduction:: Gestational diabetes is a chronic metabolic disease that requires frequent hospitalizations. Preventing gestational diabetes is important for the health of both mother and child. Telemedicine is defined by medical professionals and telecommunications technologies. This review study was conducted to compare the outcomes of telemedicine with follow-up and standard care in women with gestational diabetes.

Method & material:: this systematic review was conducted by analyzing articles from the PubMed, Science Direct and Google Scholar databases with the keywords “gestational diabetes”, “telemedicine”, “telehealth” and “diabetes mellitus” between January 2018 and April 2023. After the initial search, only the relevance of the title and abstract to the study objectives was checked and irrelevant articles were removed.

Result:: Despite resource constraints, healthcare organizations have proposed telemedicine AI as a useful tool to facilitate universal and effective medical care for GDM. Instructions include access to electronic health data as well as sensors for glucose levels, blood pressure and more. Studies have shown that this system is viable. Telehealth services have been associated with reductions in polyhydramnios, premature rupture of membranes, preterm births, emergency cesarean sections, and infant asphyxia in women with gestational diabetes compared to standard care. In several studies analyzed, women with GDM were randomly assigned to two groups of people who used telemedicine to document glucose levels and communication between woman, newborn, and fetus. It was found that compared to standard care, the telemedicine intervention was more effective in reducing glycemic levels in patients with gestational diabetes, and the risk of maternal, fetus and infant complications.

Conclusion:: Telemedicine appears to be a promising approach to diabetes control and prevention; It can replace routine care and effectively reduce patients' blood sugar levels.

G-1752

Academic burnout is one of the common problems in educational environments that a significant percentage of students suffer from. The present study was conducted with the aim of modeling factors affecting academic burnout.

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Introduction: Academic burnout is one of the common problems in educational environments that a significant percentage of students suffer from. The present study was conducted with the aim of modeling factors affecting academic burnout.

Method & material: 400 undergraduate students from all majors in Shahrekord University of Medical Sciences were selected and participated in this cross-sectional study in the 2018-2019 academic year by multi-stage cluster sampling. The data collection tool included a 15-question academic burnout questionnaire and a 10-question self-esteem questionnaire, the validity and reliability of the Persian version of which had been confirmed in previous studies. Chi-square test or Fisher's exact test was used to test the relationship between qualitative variables. Also, two independent sample t-tests and one-way analysis of variance were used to compare numerical values in two or more independent groups. Also, the variables whose pi value was less than 0.2 in univariate tests were included in the linear regression model. All analyzes were done using SPSS 21 software.

Result: The average age of the participants in this study was 21.76. Most of the participants in this study were female students (77%), single (86.3%) and dormitory residents (71.5%). The average score of academic burnout was 43.14 ± 11.16. Male students with an average score of 47.25 ± 9.15 compared to female students had a significantly higher level of academic burnout (41.91 ± 11.42) (p value 0.001). Also, students with a personal car with an average score of 44.94 ± 11.41 compared to students without a personal car (42.80 ± 11.09) had a higher burnout level (p value = 0.16). The average academic burnout was reported as 43.91 ± 10.91 in students with a personal laptop and 42.44 ± 11.39 in students without a personal laptop (p value = 0.19). Finally, the variables of gender, self-esteem, access to a laptop and personal car were included in the regression model. The results

Conclusion: Considering the existence of a significant relationship between self-esteem and academic burnout, the implementation of effective interventions to increase self-esteem can be effective in reducing the academic burnout of undergraduate students.

G-1753

Application of Bayesian Networks to Explore Predictive Factors of Ergonomic Behaviors among Iranian Female Assembly Line Workers, Based on Social Cognitive Theory

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Introduction:: Musculoskeletal disorders (MSDs) are conditions affecting the body's muscles, bones, tendons, and ligaments, and it is crucial to address this issue among female assembly workers due to their increased vulnerability to MSDs resulting from repetitive motions and unfavorable body postures. This study utilizes Bayesian network analysis based on social cognitive theory to identify key factors related to ergonomic behaviors among female assembly line workers, aiming to prevent musculoskeletal disorders resulting from repetitive motions and unfavorable body postures.

Method & material:: In 2022, a cross-sectional study was conducted on 250 women employed in assembly line work across six different industries in Nishaburran. The study employed a two-stage cluster sampling method to select participants. Valid and reliable self-report questionnaires were used to gather data on demographic characteristics, variables related to social cognitive theory, ergonomic behaviors, and the Nordic standard questionnaire. The collected data underwent analysis using Netica software and SPSS version 21, which included statistical tests such as independent t-tests, Pearson's correlation, and analysis of variance (ANOVA) at a significance level of p0.05. Bayesian network analysis was utilized to identify significant factors influencing ergonomic behaviors.

Result:: The majority of individuals stated that they suffer from persistent pain in their back, neck, and shoulders. The adoption of ergonomic behaviors was found to have a significant correlation with engaging in physical activity, consuming dairy products, and obtaining a higher level of education, with a p-value of less than 0.05. Observational learning, intention, and social support were the constructs of social cognitive theory that displayed the highest levels of sensitivity to ergonomic behaviors, with scores of 4.08, 3.82, and 3.57, respectively. However, it is important to note that all constructs of social cognitive theory exhibited some degree of sensitivity to ergonomic behaviors.

Conclusion:: The study found that chronic pain in the back, neck, and shoulder areas is a common problem. Adopting ergonomic behaviors was linked to physical activity, dairy consumption, and education, indicating that promoting healthy habits and education could help alleviate pain. Social cognitive theory constructs, such as observational learning, intention, and social support, were highly sensitive to ergonomic behaviors, emphasizing the importance of considering social cognitive factors when designing interventions. Overall, these findings provide valuable insights into the factors contributing to chronic pain and suggest potential solutions.

G-1754

Evaluation of the effect of flavonoid fraction of Rosa damascena on LOX-2 expression in a CCL4-induced hepatic fibrosis

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Introduction:: The treatment of chronic liver fibrosis has become a global concern in recent decades. If left untreated, chronic liver inflammation can lead to liver fibrosis, which leads to cirrhosis (1). Excessive extracellular matrix (ECM) accumulation and collagen cross-linking lead to the progression of liver fibrosis. Collagen bridge is facilitated by the lysyl oxidase (LOX) enzyme. LOX is an extracellular copper-dependent enzyme that catalyzes the formation of the covalent bridge in collagen fibers by transforming lysine into aldehydes (2). Overexpression and elevated levels of LOX have been associated with the development of a range of diseases. LOX provides a pathologic microenvironment in the advancement of fibrotic and malignant processes, and monoclonal antibody (AB0023) targeting of lysyl oxidase homolog 2 (Loxl2) was associated with a decrease in TGF-β (transforming growth factor-β) and some other cytokine production (2). Inhibiting Loxl2 significantly promoted the regression of hepatic fibrosis and stopped the fibrotic process (3).

Method & material:: After separating the fraction by vacuum coupled liquid chromatography (VLC), it was standardized by high performance liquid chromatography (HPLC) based on the amount of quercetin and kaempferol as the main active component of this plant. In this study, 30 rats and 1 ml/kg of CCL4 were used to induce liver fibrosis for 12 weeks, and three concentrations of this fraction were used in the last four weeks. Finally, the relative expression levels of LOXl2 gene was measured semi-quantitatively by the PCR method and antioxidant and oxidative markers were evaluated.

Result:: After intervention with flavonoid fraction of Rosa Damascena, the results of biochemical and histopathological parameters of liver tissue showed improvement of liver damage and fibrosis in liver tissue. The level of tissue hydroxyproline decreased after therapeutic intervention (P0.001). Also, a significant decrease in LOXl2 gene expression changes were observed by Real-time PCR method in the treatment groups compared to the fibrosis group. By examining the amount of glycosaminoglycan (GAGs) and the activity of Glutathione peroxidase (GPx), in fibrotic groups treated with different concentrations of flavonoid fraction, a significant increase in GPx activity and a significant decrease in tissue GAG was observed (P0.01) .

Conclusion:: Finally, our findings revealed a molecular mechanism for a fraction of R.D. anti-fibrotic action as a natural compound: downregulation of LOX expression. More research into the influence of this fraction on tissue stiffness and LOX activity could provide more evidence to support or refute our findings.

G-1755

Synthesis and characterization of CO3O4/Nd2O3 nanoparticles and their anticancer effects

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Introduction:: cancer is the second leading cause of death after cardiovascular disease, and lung cancer is one of the most common types with a high mortality rate. Using nanoparticle complexes in cancer treatment is effective, and synthesized Co3O4-NPs (nanoparticles) have shown great anti-cancer potential against cancerous cell lines. Cobalt-based nanoparticles and cobalt oxide nanoparticles (Co3O4-NPs) in particular, are attracting huge attention because of their high thermal stability and excellent optical, magnetic, and electrical properties. By using magnetic resonance imaging, lanthanides have been suggested to treat several diseases and diagnoses. They could also act as scavengers of free radicals and protect cells and tissues from the harmful effects of oxidative stress. Because of these features, nanoparticles can deliver high doses of cytotoxic drugs to cancer sites while protecting healthy cells from cytotoxic side effects. we aim to synthesize and characterization of CO3O4/Nd2O3 nanoparticles and their anticancer effects on lung cancer cells.

Method & material:: To ensure the work steps were as accurate as possible before initiating the cell culture, CO3O4/Nd2O3 nanoparticles were synthesized and characterized by FTIR (Fourier transform infrared), DLS (Dynamic Light Scattering), XRD (X-Ray Diffraction), FESEM, TEM (Transmission Electron Microscopy), VSM (Value stream mapping), and DRS (Drag reduction system). Next, the complexes were tested for anticancer activity in the A549 lung cancer cell line at the concentrations required to inhibit growth and the MTT test was performed at two different time intervals. Also, the mitochondrial membrane potential and oxygen free radical production were evaluated by MMP and ROS (reactive oxygen spices) test at two-time intervals of 24, 48 hours; then the efficacy of these nanoparticles was compared with cisplatin.

Result:: MNPs significantly increased mortality in A549 cell lines at all concentrations. These cytotoxic effects are dose-dependent and time-dependent so that at 24, and 48 hours, IC50 was 15.16µM, 25.44µM and compared to IC50 of well-known and widely used drugs such as cisplatin in the same time intervals, on A549 cancer cells. The cell survival rate, which was also measured by MTT assay after 48 hours, showed that these nanoparticles, especially at higher concentrations, had more significant lethal effects than the control and cisplatin treatment groups.

Conclusion:: Results of previous studies have shown that metal nanoparticles with magnetic and fast cellular uptake properties are successful in medical biotechnology and cancer therapy. With increasing progress in nanomedicine field, it can be expected more strategies come out for CoNPs. This study showed the effectiveness of the CO3O4/Nd2O3 short-term experiment; However, there is not enough information about anticancer effect CoNPs in chronic term. We synthesized the CO3O4/Nd2O3 nanoparticles complex and investigated its effect on A549 cells and found that this

G-1756

Alginate/chitosan hydrogels containing silymarin and zinc oxide nanoparticles intended for efficient healing of burn wounds

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Introduction:: Burn injuries are a significant global health concern, with around 11 million cases and 180,000 deaths reported annually. Healing burn wounds are complex and challenging to design an ideal scaffold/dressing for tissue regeneration. Traditional burn wound care involves various measures, including early resuscitation and infection control. Modern wet dressings, such as hydrogels, have gained popularity due to their advantages in promoting moist wound healing, pain relief, and infection prevention. Alginate and chitosan-based hydrogels are promising materials for burn wound dressings. Silymarin, a compound from milk thistle, and green-synthesized zinc oxide nanoparticles (ZnO NPs) have potential therapeutic benefits in wound healing. This study aimed to develop a natural-based hydrogel incorporating silymarin and ZnO NPs and evaluate its effectiveness in promoting burn wound healing using a rat model.

Method & material:: The ZnO NPs were prepared by a green synthesis method. The silymarin and green synthesized ZnO NPs were incorporated into alginate/chitosan hydrogels. Then, the physicochemical properties of the prepared ZnO NPs and hydrogel were evaluated. After that, the antioxidant activity, liquid absorption, porosity and degradation rate of hydrogel were determined. In an animal rat skin burn model, wound closure and histopathological indicators of the wound site were studied.

Result:: The prepared ZnO NPs had a nanoscale size (50 nm) and uniform spherical morphology. Also, the co-loaded hydrogel indicated a very flexible texture, the interconnected porous architecture with high porosity (90%) and high liquid absorption capacity. Besides, the developed hydrogel displayed remarkable free-radical scavenging ability against DPPH Free radical. Biodegradability of the prepared hydrogel was confirmed with weight loss assessment (almost 90% after 4 days). Wound healing evaluation in the burn model showed that the hydrogel containing both silymarin and ZnO NPs caused the maximum reduction of the wound area, the maximum rate of wound closure, and accelerated skin regeneration. In addition, histopathology studies confirmed the complete regeneration of skin layers, formation of collagen fibers and angiogenesis.

Conclusion:: The proposed hydrogel containing silymarin and ZnO NPs provides an appropriate dressing for an environment of burn wounds with combined therapeutic capabilities for accelerating the healing process and tissue regeneration at the burn wound site.

G-1757

An analysis of the prevalence of mental health disorders in waste and municipal waste collection workers: a systematic review

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Introduction:: Today, the management of municipal waste, especially in developing countries, is on the rise. The increase in waste generation and the lack of mechanized waste collection systems have made waste collection workers one of the irreplaceable components of waste management in these countries. So far, limited studies have focused on mental health challenges such as stress and depression among waste management and collection workers. Since depression and chronic stress often occur together and significantly affect the quality of life of individuals and communities, this systematic review examines the prevalence of mental health challenges among municipal waste collectors in developing countries.

Method & material:: A systematic review was conducted on the PubMed, Scopus, and Web of Science databases using keywords such as depression, anxiety, waste, waste collection workers, garbage, performance, and 7 studies were identified. Among these studies, 3 studies examined the mental health of waste collection workers, 2 studies investigated the prevalence of mental health challenges among garbage pickers, 1 study explored the mental health of garbage collectors during the COVID-19 pandemic, and 1 study compared the mental and occupational health of waste collection workers with other sectors. Given the focus of our discussion and the examination of the effect of depression among garbage collectors, only 3 studies met our inclusion criteria, and the remaining studies were excluded due to their focus on depression among garbage pickers and garbage collectors during COVID-19.

Result:: The results of this study on 1606 individuals (64 from Ghana, 802 from Vietnam, 740 from West Africa) indicate a high prevalence of stress among waste collection workers. The reported stress levels in the conducted studies ranged from 13.4% (lowest) to 76.76% (highest). (The average stress in these studies was reported as 45.8%). Low wages, negative social attitudes toward job status, heat stress, night shifts, and high weekly working days and workplace violence were among the factors contributing to stress and mental health challenges in these individuals.

Conclusion:: Considering the importance of waste management and collection in cities and its impact on the community's health and well-being, the efficiency and mental health of these workers are of utmost importance. The high percentage of workers experiencing severe stress underscores the necessity of preventing and treating their mental health. Furthermore, the need for waste management policies aimed at improving working environments and enhancing the well-being and safety of workers in municipal waste collection sectors is strongly felt.

G-1758

Spirituality and Mental Health

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Introduction:: World Health Organization has added spirituality to the lifestyle dimensions of health promotion since 2020. There has been increased attention in recent years to the link between mental health and spirituality. This study reviewed the evidence regarding the relationship between spirituality and mental health.

Method & material:: In this narrative review, the relationship between spirituality and mental health has been described. a search was conducted using keywords such as Religion , Spirituality , Mental health in the databases Magiran, Scopus, Web of Science, Pubmed, and PsycINFO, as well as the Google Scholar search engine. The search was limited to quantitative and qualitative articles published in Persian and English in 2000 to 2022, and 35 studies were examined.

Result:: The results indicated that the relationship between mental health and spirituality is a complex, multidimensional phenomenon with positive and negative dimensions. Positive dimensions include the association of spirituality and religious participation with better mental health outcomes. This includes increased sense of well-being, lower rates of depression, anxiety, suicidal thoughts, and higher levels of resilience. The positive effects are explained by factors such as social support, meaning and purpose, and behavioral and cognitive coping strategies. Conversely, some studies have indicated that religion can negatively impact people's mental health by increasing their feelings of guilt and shame. In addition, extreme religious or spiritual activities can have negative mental health consequences.

Conclusion:: Accordingly, spirituality, including adherence to a moral principle, faith in a higher power, and participation in religious activities, are associated with better mental health outcomes. However, spirituality's negative role in mental health has also been mentioned in some studies. One of the causes is the extreme involvement in religious activities that neglects other aspects of life. In spite of conflicting evidence, more research is needed to understand how spirituality and mental health interact.

G-1759

The relationship between soy intake and risk of gastric cancer: a systematic review

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Introduction: Gastric cancer (GC) is one of the most common types of cancer which dietary factors have been reported to play an important role on its development. Soy bean has a number of bioactive phytochemicals, such as isoflavones that have been shown to reduce the incidence of many cancers. However, its effect on gastrointestinal (GI) cancer remains controversial. Therefore, the purpose of this review is to investigate the relationship between soy bean intake and the risk of gastric cancer.

Method & material: Systematic search was conducted in the online databases including PubMed, Web of science, Scopus and google scholar up to June 2023 without publication date or language restrictions. The following search terms were used for the systematic search: soy OR soybean OR bean OR legume OR tofu OR miso OR natto AND gastric cancer OR stomach cancer OR gastric tumor OR stomach tumor . In addition, the references of the studies have been checked for inclusion the related articles.

Result: Out of 129 articles that were found, finally 20 articles met the inclusion criteria. Among 15 case-control studies, 7 articles could not find any significant relationship between soybean consumption and gastric cancer, while 8 articles stated that soy bean consumption is inversely associated with gastric cancer. Additionally, among the 5 cohort studies, 4 articles did not find any significant relationship between soy consumption and gastric cancer, however, a recent study in Japan showed an inverse relationship between soybean consumption and gastric cancer. The possible mechanism is that soybean can promote the immune function of gastric cells. It is also suggested that soy-based diets might increase the number of ‘beneficial bacteria’ (such as lactic acid bacteria) in the gut microbiota, which may be one of the reasons why soy foods can decrease the risk of GC. According to studies, the other possible mechanism could be the interactions between IL-10 gene variants

Conclusion: Considering the results of this review, a high amount of nonfermented soy foods consumption can potentially reduce the risk of GC as a result of having influence gut microbiota, immunological and inflammation functions. However, to draw better conclusions, it seems necessary to conduct high quality Randomized clinical trial studies with in this field.

G-1762

An immunoinformatics approach for the design of a multi-epitope vaccine targeting super antigen TSST-1 of Staphylococcus aureus

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Introduction:: TSST-1 is a secretory and pyrogenic superantigen that is being responsible for staphylococcal mediated food poisoning and associated clinical manifestations. It is one of the main targets for the construction of vaccine candidates against Staphylococcus aureus. Most of the vaccines have met failure due to adverse reactions and toxicity reported during late clinical studies. To overcome this, an immunoinformatics approach is being used in the present study for the design of a multi-epitope vaccine to circumvent the problems related to toxicity and allergenicity. In this study, a multi-epitope vaccine against Staphylococcus aureus targeting TSST-1 was designed through an immunoinformatics approach

Method & material:: B cell and T cell epitopes were predicted in silico and mapped with linkers to avoid junctional immunogenicity and to ensure the efficient presentation of exposed epitopes through HLA. β-defensin and PADRE were adjusted at the N-terminal end of the final vaccine as adjuvants. Physiochemical parameters, antigenicity, and allergenicity of the vaccine construct were determined with the help of online servers. The three-dimensional structure of the vaccine protein was predicted and validated with various tools. The affinity of the vaccine with TLR-3 was studied through molecular docking studies and the interactions of two proteins were visualized using LigPlot+.

Result:: The vaccine was successfully cloned in silico into pET-28a (+) for efficient expression in E. coli K12 system. Population coverage analysis had shown that the vaccine construct can cover 83.15% of the global population. Immune simulation studies showed an increase in the antibody levels, IL-2, IFN-γ, TGF-β, B cell, and T cell populations and induced primary, secondary, and tertiary immune responses. Multi-epitope vaccine designed through a computational approach is a non-allergic and non-toxic antigen.

Conclusion:: Preliminary in silico reports have shown that this vaccine could elicit both B cell and T cell responses in the host as desired

G-1764

The Prevalence of Dysphagia in Patients with COVID-19: A Systematic Review and Meta-Analysis

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Introduction:: The world has been suffering from COVID-19 since 2020. It is thought that there's a high risk of dysphagia in patients with COVID-19. Therefore, the purpose of this study was to estimate the prevalence of dysphagia in patients affected by COVID-19 at three different time points: admission, discharge, and 3-6 months post-discharge or after their positive SARS-CoV-2 test result.

Method & material:: The authors reported this research based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement and with PROSPERO registration number: CRD42023405377. Any related papers that reported dysphagia in patients affected by COVID-19 at the time of admission, at the time of hospital discharge, or 3-6 months post-discharge or after their positive SARS-CoV-2 test result, were entered into this analysis. All article designs (cross-sectional studies, case-control studies, non-randomized controlled trials, and randomized controlled trials) were entered. Only articles in Persian and English were entered and reviewed. Review studies were excluded from this study. Since the sample numbers are important in metaanalysis research, case report articles were excluded too. Only the characteristics of adult patients were included. The first and second authors separately extracted and evaluated the country of implementation, year of publication, sample size, average age, gender, dysphagia assessment method, and the number of patients who had dysphagia.

Result:: Of the 2736 identified records, 19 articles (n = 5334 patients) were included in the meta-analysis. In four studies (n = 643 patients), the prevalence of dysphagia at admission, in 13 studies (n = 2286 patients) the of dysphagia at discharge, and in eight studies (n = 2405 patients) the prevalence of dysphagia in the long-term were investigated. In studies that reported dysphagia assessment tools, all studies used subjective tools to screen for swallowing impairment. The prevalence of dysphagia in COVID-19 patients at admission, discharge, long-term, and total was 32% (SD = 13), 29% (SD = 4), 14% (SD = 3), and 24% (SD = 3), respectively. Overall, the mean age of the patients was 61.2 years. In detail, the mean age of the patients at the time of admission, discharge, and 3-6 months post-discharge was 66.5 years, 64.28 years, and 57.11 years, respectively.

Conclusion:: COVID-19 may cause a considerable percentage of the infected patients to have dysphagia in the acute phase and also in the post-acute phase of the disease. Early evaluation by speech and language pathologists is essential to identify the suspected patients and early intervention to prevent further complications and improve their quality of life.

G-1765

The effects of melatonin supplementation on clinical severity in rodent models of multiple sclerosis; a systematic review and meta-analysis

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Introduction:: Multiple sclerosis (MS) is an immune-mediated disease which is characterized by chronic progressive inflammation of myelin sheath. Experimental autoimmune encephalomyelitis (EAE) is acknowledged as a widely used animal model of MS pathogenesis as it resembles the neurodegenerative and autoimmune features of Ms. Several studies have investigated the impact of melatonin supplementation on clinical severity index in EAE-induced rodents. Due to the lack of a conclusive review on this topic, conducting a systematic review may contribute to a consensus on melatonin administration in MS patients.

Method & material:: Four databases were systematically searched in compliance with PRISMA method. All original animal studies investigating the effects of melatonin of clinical severity of EAE-induced rodents were included.

Result:: Ten studies were included in systematic review and meta-analysis. Subgroup analysis based on strains (rat and mouse) was performed as well. In eight studies, a significant difference was reported between the melatonin and placebo groups, but in the other two studies, it was not statistically significant. In the meta-analysis, the difference between the melatonin and placebo groups was significant (SMD: -2.52; 95%CI: -3.61 to -1.42; p-value0.01). In subgroup analyses, the difference between melatonin and placebo EAE was only meaningful in the mouse subgroup (SMD: -2.60; 95%CI: -3.74 to -1.46; p-value0.01)

Conclusion:: Evidences imply that melatonin is beneficial on clinical severity index of EAE rodents. Same impacts seem to apply in MS patients which merit further investigation via clinical studies.

G-1766

Application of magnetic Fe3O4@chitosan as a magnetically recyclable green nanocatalyst for the environmentally benign synthesis of spirooxindoles and spirochromenes

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Introduction:: Nanocatalysis has brought a revolution in the field of catalysis and plays a crucial role in green organic synthesis. This emerging catalytic technique possesses several merits over conventional catalysts such as a high surface-to-volume ratio, great catalytic performance, high selectivity, and stability. A fundamental approach for achieving catalysts with exceptional features is the production of heterogeneous nanocatalysts. Although the catalytic activity of homogeneous nanocatalysts is high, their complete separation from the reaction medium is not easy and is troublesome, especially in the pharmaceutical industry. However, heterogeneous nanocatalysts are rapidly and readily isolated from the reaction mixture, and reused without loss in amount during the purification process. In this study, the catalytic performance of the Fe3O4@chitosan heterogeneous nanocatalyst was investigated in an environmentally benign and efficacious fabrication of a variety of spirooxindole and spirochromene derivatives.

Method & material:: Nanocatalyst has been afforded by coating Fe3O4 nanoparticles with chitosan through simple and readily available chemicals. Fourier Transform Infrared Spectroscopy, X-ray Diffraction, Scanning Electron Microscopy, Dynamic Light Scattering, Vibrating Sample Magnetometer, and Thermogravimetric analyses were used to describe this nanocatalyst. The catalytic performance of the Fe3O4@chitosan heterogeneous nanocatalyst was investigated in an environmentally benign and efficacious fabrication of a variety of spirooxindole and spirochromene derivatives in high yields via employing three-component reactions of malononitrile, dimedone, and isatin in a solvent-free medium at ambient temperature and under ultrasonic conditions in EtOH/H2O. Spirooxindole and spirochromene derivatives were characterized by 1H-NMR, 13C-NMR, IR, and MS spectroscopy.

Result:: A sustainable nanocatalyzed was used to prepare spirooxindoles and spirochromenes compounds. Spiro heterocycles with distinct biological activities play a superior role in modern organic and medicinal chemistry, among which spirocyclic oxindoles are promising candidates for drug discovery. Considering the green chemistry, green and safe materials were used for the environmentally benign synthesis of these compounds under solvent-free conditions at room temperature and ultrasonic conditions. In this study, Fe3O4@chitosan was introduced as a green, biocompatible, as well as efficient heterogeneous nanocatalyst. The main advantages of this research are environmental friendliness, high yields, catalyst reusability, and simplicity of workup.

Conclusion:: Following the principle of green chemistry, Fe3O4@chitosan has considered factors like an easy workup procedure, excellent yields, reusable catalysts, and environmentally friendly reaction conditions that performed the synthesis of this important class of biologically active compound in a short reaction time.

G-1767

Investigating social capital and the Associated Factors Among in general population of Ilam: a population based cross-sectional studies

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Introduction:: According to the definition of the World Health Organization (WHO), social capital refers to the value of relationships between people who work or live together and the knowledge and skills they share (1). It can also be seen as the potential ability to gain resources, favors or information from personal connections. Social capital can benefit society or organizations by creating a sense of shared values and mutual respect. Also, if it is used to manipulate people or destroy order, it can have negative effects (2, 3).Considering the importance of social capital, this research was conducted with the aim of investigating social capital and the factors affecting it in the general population of Ilam city.

Method & material:: This population-based cross-sectional study was conducted in the city of Ilam located in the west of Iran in 1401. 1527 people over 15 years old were invited by multi stage stratified cluster random sampling method. Data collection tools were demographic questionnaire and social capital questionnaire. Data analysis was performed using independent t-tests, Pearson's correlation coefficient, one-way analysis of variance and multiple linear regression using STATA17 software. A significance level of 5% was considered.

Result:: A total of 1431 people completed the questionnaire. The average (standard deviation) age of the participants was 40.43 (15.51) years and almost half of the participants (50.38%) were women. The average social capital score of the participants was 47.93 ± 15.5. Among the fields, the lowest average was related to the field of membership in groups and associations 33.96 ± 31.47 and the highest average was related to the field of social cohesion 74.72 ± 12.85. The results showed that the total social capital has a significant relationship with the variables of gender (B: -4.04, p0.001), economic status (B: 2.90, p0.001), age (B: 0.10, p0.001).

Conclusion:: Among the areas of social capital, the highest and lowest average scores were related to the areas of social cohesion and membership in groups and associations. Since social capital is known to be the most powerful coping force for successful and easy confrontation in times of conflict with challenging situations and facilitates the management of problems, therefore it is very important to know the factors affecting it. The most important demographic factors predicting social capital in this study included gender, age and economic status.. Therefore, policy makers and health planners are expected to consider the role of these factors and design and implement community-oriented interventions.

G-1768

A survey of Dioctophyma renale's frequency and related factors in road–killed canids of northern Iran

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Introduction:: Dioctophyma renale or "giant kidney worm" is a nematode species of Dictophymatidae family which its adult form habitats in kidney parenchyma of carnivores throughout the world (1). Due to the vast number of hosts for D.renale in northern Iran with favorable mild and humid weather in Southern shores of Caspian sea, this study aimed to determine the Dioctophyma renale's frequency and related factors in road-killed canids of northern Iran (2).

Method & material:: In the descriptive-analytical cross-sectional study, 54 carcasses of road-killed canids which were appeared in car accidents, namely, 22 dogs (Canis familaris) and 32 golden jackals (Canis aureus) in northern provinces of Iran (Guilan and Mazandaran) were collected by consensus sampling method and transferred to parasitology laboratory of Guilan school of medicine from winter of 2016 to spring of 2023 where samples were dissected. Moreover, kidney parenchymal tissue and abdominal cavity of carcasses were fully analyzed searching for D. renale's worm. Furthermore, statistical Chi-Square test was performed in spss v16.0 for comparing carnivore's sex and species of infected animal to the rate of infection with D.renale. The level of significance was considered 0.05.

Result:: In the study D.renale infection was observed in 4.6% of dogs and 21.9% of golden jackals. In this study, cases of infection with D.renale were reported specifically from Guilan province.Although prevalence of D.renale infection in golden jackals was higher than dogs, there was no significant statistical correlation between species and infection rate (P 0.05).There was no significant statistical correlation between carnivore's sex and rate of infection with D.renale (P 0.05).

Conclusion:: This study reports high prevalence of Dioctophymiasis in dogs and jackals of Guilan province. Thus, concerning risk of transmission of this zoonotic nematode to humans, warning doctors and veterans about these infected regions prioritizes.

G-1771

Illicit Drug Use and the Associated Factors Among in general population of Ilam: a population based cross sectional studies

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Introduction:: One of the most important challenges and issues in the world is the increasing number of narcotic drugs users and the excessive variety of narcotic drugs (1). Illegal drugs are substances such as heroin, barbiturates, amphetamines, cocaine, hashish, hallucinogens and opiates (2). Drugs addiction can cause severe physical, psychological and social consequences for the individual and society, and the destructive effects of these drugs are a great threat to societies due to the increase in deaths and crime (2, 3). Therefore, the aim of this study is to determine the standardized prevalence according to age and gender and the risk factors of illegal drug use (IDU) in Ilam city

Method & material:: In this population-based cross-sectional study that was done in 2022, 1464 people over 15 years old were invited using a multi-stage stratified cluster random sampling method from the city of Ilam (located in the west of Iran). IDU were measured using the standard questionnaire. For data analysis, multiple Firth's Logistic Regression was used in Stata version 12 software. A significance level of 5% was considered.

Result:: The data of 1431 people were analyzed. The mean age (standard deviation) of the participants was 40.43 (15.51) years and almost half of the participants (50.38%) were women. The age- and sex-standardized prevalence (95% CI) of IDU during lifetime, last year, last month were estimated as 1.6% (0.95, 2.25), 1.1% (0.57, 1.66) and 0.6% (0.21, 1.03), respectively. Opium was the most common substance consumed by the people. According to multiple Firth's Logistic Regression, there is a significant association between education level ≥ Bachelor (OR:0.05; 0.001), Diploma and Associate Degree education level (OR:0.09; p=0.002), smoking (OR:13.77; P0.001), alcohol consumption (OR: 12.81; p0.001) with IDU.

Conclusion:: In different studies, illegal drugs have been defined using different concepts. This issue causes the prevalence of IDU, be reported differently in studies .(4) Comparing our findings with the studies conducted in Ilam in the last 10 years and other similar studies showed that the IDU rate in Ilam is fluctuating . The prevalence of IDU in the population over 15 years old in Ilam was relatively high. Prevalence of IDU during lifetime, last year, last month was estimated as 1.6, 1.1, 0.6% respectively. Although the prevalence of IDU is high in men, the high rate in people with low education level, people who consume cigarettes and alcohol at the same time is considered a serious threat. Our findings can be used in planning and evaluating interventions based on relevant risk factors.

G-1774

The Frequency of various types of domestic violence in women with addicted male partners referring to addiction treatment centers and its relationship with demographic factors in Isfahan in 2022.

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Introduction:: Violence against women has existed in various forms throughout history. Violence against women is a phenomenon in which women are deprived of their rights due to their gender, often by the opposite sex. Generally, any act or behavior that causes physical, sexual, or psychological harm or deprivation and suffering to women is called violence against women. Threats of such actions, forced or voluntary deprivation of freedom, whether in personal or collective life, are also part of this social harm. Psychologists have noted the division and attention to gender roles as well as social acceptance in examining this phenomenon. This unfortunate occurrence has grown to such an extent that it is considered a blatant violation of human rights worldwide.

Method & material:: In this cross-sectional study, a total of 110 spouses of male addicts attending an addiction treatment center were randomly selected. After obtaining personal consent and commitment to confidentiality, they completed the Domestic Violence against Women questionnaire (Tabrizi and colleagues' questionnaire, which includes 71 questions in four sections of demographic information, types of spousal abuse, patriarchal beliefs, traditions and family upbringing, and learning violence). Then, the data were analyzed using SPSS software and statistical tests.

Result:: The results show that 72.7% of women have experienced domestic violence. Domestic violence did not have a significant correlation with age, age difference, and number of children among women and men in this study (p value 0.05). However, it had a significant and direct correlation with education, occupation, family ratio, previous marriage history, and family history of domestic violence among women (p value 0.05). In this study, psychological violence accounted for 70% of domestic violence, economic violence for 62%, physical violence for 52%, and sexual violence for 30%.

Conclusion:: It appears that education, the employment status of the couple, their previous marital history, and the history of domestic violence in the family are predictive factors for domestic violence. It is recommended that individuals with these factors receive more attention and care.

G-1775

Integrated bioprocessing and genetic strategies to enhance soluble expression of anti–HER2 immunotoxin in Escherichia coli

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Introduction:: Immunotoxins are produced through recombinant fusion of a toxin with an antibody that selectively attaches to cancerous target cells,especially breast cancer cells with high expression of anti-HER2 receptors.studies demonstrated that the trc promoter in E.coli can generate a high quantity of soluble recombinant protein. Therefore, proper integration of genetic and bioprocessing strategies appears to be crucial for efficient soluble expression of recombinant proteins. In our study, a novel anti-HER2 immunotoxin containing a modified Pseudomonas toxin was expressed under the regulation of the trc promoter. To improve the soluble expression of this immunotoxin, the cultivation conditions, such as inducer concentration, culture temperature, growth medium, and induction timing were optimized using Box–Behnken design with RSM.

Method & material:: The synthetic gene of scFv-PE35KDEL encoding anti-HER2 immunotoxin was codon-optimized and synthesized by Integrated DNA Technologies in two fragments with 21 bp overlap. These DNA fragments were Gibson–assembled with the PCR-linearized pTrc99a as the backbone. The input factors were IPTG concentration (0.1-1 mM), post-induction time (2-18 h), post-induction temperature (23-37 ºC), and medium recipe (LB, 2XYT, and TB). As a result, 45 cultivations were conducted.The best soluble expression of anti-HER2 immunotoxin was used to purify using affinity chromatography under native conditions.To evaluate the bioactivity of the purified protein, the HER2-overexpressing cell line of SK-OV-3 was seeded in a ELISA plate. The colorimetric reaction and the absorbance was measured at 490 nm.

Result:: The effects of all four cultivation parameters on soluble expression of anti-HER2 immunotoxin were significant though the culture medium had a less significant effect. The optimal solution with the highest soluble expression of the protein (261 µg/ml) would be achieved with 0.1 mM IPTG in LB medium culture at 33 °C for 18 h.After the cultivation for the expression of immunotoxin under the optimal condition, the fusion protein was successfully purified by affinity chromatography using a Ni-NTA column under native conditions.The attachment of immunotoxin to SK-OV-3 cells was successfully demonstrated in a dose-dependent manner.

Conclusion:: RSM was successfully applied to optimize cultivation conditions for soluble expression of anti-HER2 immunotoxin under the regulation of the trc promoter in E. coli. Such that a sufficient amount of biologically functional and soluble recombinant protein could be obtained for subsequent in vitro and in vivo trials. The results suggest that inducer concentration, medium recipe, post-induction temperature, and post-induction time have significant effects on the cultivation performance for soluble expression of anti-HER2 immunotoxin in E. coli. The optimal conditions were determined to be 0.1 mM IPTG for induction of gene expression at 33 °C for 18 h in the LB medium. The approaches documented in this study can be generally applied to enhance the expression yield and solubility of recombinant proteins in E. coli.

G-1776

Correlation between troponin I level and mortality rates in COVID-19 patients

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Introduction:: Given the alarming increase in COVID-19-related deaths globally, with a notable impact in Iran, and the emergence of research indicating a correlation between elevated troponin I levels and mortality in individuals infected with SARS-COV2, this investigation endeavors to explore the potential link between troponin I levels and mortality rates in COVID-19 patients who presented at Tohid Sanandaj Hospital's emergency department during September 2021 - March 2022.

Method & material:: From September 2021 until March 2022, Tohid Hospital's emergency department conducted a study involving 200 COVID-19 patients who underwent a troponin I level measurement test. The collected data included patient monitoring throughout their hospital stay, age, sex, chronic or concomitant diseases, the type and severity of such diseases (if applicable), and patient outcomes (discharge or death) in relation to test results. Using SPSS 22 software, the data was analyzed after separating the information for each patient, with a significance level of p0.05 used in the study.

Result:: According to this study, the patient's average age was 58.12, with the youngest being 18 and the oldest being 95. Interestingly, patients who tested positive for troponin had an average age of 70.94, while those who tested negative had an average age of 55.60. This difference was found to be statistically significant. Additionally, it was observed that 41.86% of deceased patients had a positive troponin level, which was also significant. The prevalence of troponin was highest among patients with heart disease, followed by those with diabetes, high blood pressure, and heart disease. The average hospitalization days for all patients was 6.96, but this number increased to 9.64 for patients who tested positive for troponin and decreased to 6.41 for those who tested negative. This difference was also statistically significant. Interestingly, 17% of the patients tested positive for troponin, with 18.48% of men and 15.74% of women testing positive.

Conclusion:: Based on the findings, it appears that older COVID-19 patients with preexisting conditions like cardiac disease, diabetes, and high blood pressure are more likely to have a positive troponin level. However, gender and place of residence do not seem to have an impact on troponin levels. Patients with a positive troponin level tend to have a higher mortality risk and longer hospital stays. It's worth noting that troponin level is not linked to time of death. Therefore, measuring troponin I levels in COVID-19 patients can be a valuable tool in evaluating mortality risk, disease complications, hospitalization duration, and care needs.

G-1779

Preparation of the aperpitant–loaded self –nanoemulsion for intestinal permeability studies

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Introduction:: Introduction: Aperpitant is an NkI inhibitor used in the prevention and treatment of chemotherapy-induced nausea and vomiting and is a class BCS Il drug. This drug is almost insoluble in water and has low bioavailability. Aim: The aim ofthis study was to compare the intestinal permeability of apropitant- loaded self-nanoemulsifying drug delivery system compared with the free drug. The self-nanoemulsifying drug delivery system is a lipid-based drug delivery system that consists of natural or synthetic oils, surfactant and co-solvent, and after oral administration upon contact with gastrointestinal fluids, the aforementioned formulation begins to emulsify spontaneously and form a micro or nanoemulsion. In addition to increasing drug solubility, self-nanoemulsifying drug delivery systems also increase the intestinal permeability of different types of drugs.

Method & material:: In this study, self-nanoemulsifying drug delivery system was prepared by experimental design using oicie acid (ail), Tween SO (surfactant) and transcutol P (co-solvent) as the formulation excipients. SPIP method was used to measure intestinal permeability. Intestinal perfusion method in small laboratory animals, especially rats, in a best way imitates absorption in the body in animals. Unlike the in-vitro methods, in this method, the absorption barriers on the way of the drug until it reaches the hepatic blood flow are the same as the conditions inside the body. which increases its reliability. In this method, after cannulation of rat intestinal jejunum, the drug entered the intestine at a constant speed and by comparing the corrected concentration of the output to the input concentration of the drug, the intestinal permeability (Per) was calculated.

Result:: The intestinal permeability of free aprepitant and aprepitant-loaded self. nanoemulsifying drug delivery system were obtained as (74.46 ÷ 26.45)× 104 and (175.71 + 46.36) × 10 ~ cm/min, respectively.

Conclusion:: The intestinal permeability of aprepitant is significantly increased follow using the self-nanoemulsifying drug delivery system.

G-1780

Evaluating COVID-19 frequency in patients with cardiac-respiratory arrest at Sanandaj Hospital emergency department in 2020

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Introduction:: The emergence of the novel coronavirus from Wuhan, China in late December 2019 posed a significant threat to global public health. Individuals with pre-existing conditions such as high blood pressure, diabetes, and cardiovascular disorders are particularly vulnerable to contracting Covid-19. To further explore this topic, a study was conducted to determine the prevalence of COVID-19 among patients with cardiorespiratory arrest who sought emergency services at Sanandaj city-level hospitals in 2019.

Method & material:: In 2019, this comprehensive study was conducted on patients who experienced cardio-respiratory arrest and were admitted to Kausar, Tawheed, and Baath hospitals. The study analyzed data on approximately 200 patients, collected from various sources including CPR and death registries, COVID-19 PCR test results, and patients' medical records. The collected information was organized into a checklist, which included details such as age, sex, pre-existing medical conditions, severity of chronic illnesses, COVID-19 test results, and CPR outcomes. By analyzing the data for each patient, the study was able to draw valuable conclusions.

Result:: According to the study, 44.15% of patients tested positive for COVID-19 while 43.77% tested negative. The average age of all patients was 63.88 years, with positive cases having an average age of 67.42 years and negative cases having an average age of 61.09 years. 63.02% of patients were male and 36.98% were female, with 50.19% having an underlying disease. Of those with an underlying disease, 34.59% had heart disease and 23.31% had diabetes. The study found that 13.9% of patients survived resuscitation operations while 86.1% did not. COVID-19 and MI were identified as leading causes of cardiorespiratory arrest and death. The study found no statistically significant relationship between age, gender, or underlying disease and patient outcomes. However, a statistically significant relationship was found between COVID-19 incidence and chronic or underlying disease outcomes.

Conclusion:: Based on the findings, it appears that individuals with pre-existing conditions such as cardiovascular disorders and diabetes face a greater risk of contracting COVID-19, and in such cases, the mortality rate due to the disease is also higher. As a result, it is recommended that those with underlying health issues exercise particular caution in adhering to established health protocols and that they be given priority access to any available COVID-19 vaccines. Additionally, it is recommended that those with cardiovascular disorders be carefully evaluated when considering hospitalization and treatment options for COVID-19.

G-1781

The effect of curcumin on uterus leiomyoma: A systematic review of experimental researches

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Introduction:: Uterine leiomyomas (UL) are the most common benign tumors in women, often leading to various morbidities and necessitating surgical intervention. Curcumin, a bioactive compound derived from Curcuma longa, has shown promising effects in treating various conditions, including cancer and fibrotic disorders. This systematic review aims to evaluate the current experimental evidence on the effects of curcumin on uterine leiomyomas.

Method & material:: A comprehensive search of PubMed, Scopus, Embase, and Web of Science databases was conducted to identify experimental studies investigating the effects of curcumin on uterine leiomyomas. Eligible studies were assessed based on predefined inclusion and exclusion criteria, and data extraction and analysis were performed.

Result:: A total of four studies met the eligibility criteria, including in vitro and animal studies. Curcumin demonstrated potential therapeutic effects on UL by regulating crucial signaling pathways, modulating diverse metabolic pathways, suppressing extracellular matrix metabolism, and globally impacting the UL process by tuning the endocrine-immune-nervous system. Despite the promising results, the number of eligible studies was limited, and the included studies were heterogeneous in terms of design, dosage, and treatment duration.

Conclusion:: This systematic review provides evidence of the potential therapeutic effects of curcumin on uterine leiomyomas based on experimental research. Further investigation through well-designed clinical trials is necessary to establish the safety and efficacy of curcumin in the management of UL in human patients. If proven effective, curcumin could offer a valuable non-invasive and cost-effective alternative to current surgical treatments for women suffering from this prevalent benign tumor.

G-1782

Association of statin therapy on clinical outcomes in COVID-19 patients: an updated systematic review and meta-analysis on all related evidences

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Introduction:: Acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the cause of coronavirus disease 2019 (COVID-19) clinical syndrome, which began to spread into a global epidemic in early December 2019. This disease has caused significant socioeconomic burdens, complications, coinfections and mortality worldwide.(1-4) Statins is a class of lipid-lowering drugs and our previous investigations showed that statins have antiviral effects and have a wound healing effect in the lung. This systematic review and meta-analysis aimed to evaluate the effects of statin therapy on mortality and clinical outcomes in COVID-19 patients.

Method & material:: A comprehensive search was conducted in international databases, including MEDLINE, Scopus, Web of Science, and Embase from December 1, 2019 until January 26, 2022 without any restriction in language. The search strategy included a combination of medical subject headings (MeSH) terms and text words such as COVID-19, coronavirus, SARS-CoV-2, clinical outcomes, mortality, morbidity, symptoms and sign. The PICOTS (population, intervention, comparison, outcome, time, study design) components were COVID-19 patient, Statin use, no-statin, clinical outcomes including mortality and morbidity, December 1st, 2019 to January 26th, 2022, and observational studies, respectively. Identified citations were uploaded into Endnote X6 and duplicate citations were excluded. The remaining articles were initially screened independent reviewers in three steps: 1-title, 2-abstract and 3-full text. Inter-rater disagreements were resolved after consultations with the third author (I. P). The kappa index for inter-rater agreement was 89%. The random-effects model was used to estimate the pooled odds ratio (OR).

Result:: The statin therapy overally was associated with decrease in odds of ventilation [pooled OR (95% CI): 0.85 (0.70 to 0.99)] and mortality [pooled OR (95% CI): 0.73 (0.66 to 0.81)] but had no effects on the ICU admission [pooled OR (95% CI): 0.93 (0.77 to 1.12)], oxygen therapy [pooled OR (95% CI): 0.85 (0.70 to 0.99)], recovery [pooled OR (95% CI): 1.85 (0.35 to 9.92)], kidney failure [pooled OR (95% CI): 1.01 (0.73 to 1.40)], hospitalization [pooled OR (95% CI): 1.45 (0.88 to 2.36)], asymptomatic disease [pooled OR (95% CI): 1.33 (0.24 to 7.44)], and ARDS [pooled OR (95% CI): 1.15 (0.88 to 1.49)].

Conclusion:: The present meta-analysis showed that statin therapy was associated with a reduced risk of mortality and ventilation in patients with COVID-19 but have had no effects on other clinical outcomes as compared to non-statin users. Statins have been traditionally used as lipid-lowering medications in patients with cardiovascular and cerebrovascular diseases, diabetes mellitus as well as other systemic disorders. Most studies have shown a reduced or a trend for decreased risk of death with statin usehowever, a few studies showed statins therapy were significantly associated with mortalityThus, conducting a meta-analysis in this regard is inevitable.

G-1783

Investigating the effects of Lactobacillus casei probiotic in combination with Ziziphus jujube hydroalcoholic extract and Pistacia atlantica gum on cell appearance and inflammatory cytokines expression in ulcerative colitis experimental model

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Introduction:: Ulcerative colitis is a chronic inflammatory bowel disease that causes recurring episodes of active disease in the colon and rectum. Standard treatments may not always be effective, leading to the exploration of alternative therapies. Probiotics, such as Lactobacillus casei, have shown promising effects on the immune system. Pistacia atlantica, a wild pistachio species, and Ziziphus jujube, a tree-like plant, have been traditionally used in Iranian medicine for their anti-inflammatory and therapeutic properties. This study aimed to investigate the probiotic effects of Lactobacillus casei in combination with Ziziphus jujube extract and Pistacia atlantica gum on cellular profile and expression of inflammatory cytokines in an experimental model of ulcerative colitis.

Method & material:: In this study, male BALB/c mice were used and divided into 10 groups of 5 animals each, including: Group 1: Healthy control (negative control), Group 2: Untreated colitis (positive control), Group 3: Treatment with Pistacia atlantica gum hydroalcoholic extract, Group 4: Ziziphus jujube hydroalcoholic extract treatment, Group 5: Lactobacillus casei probiotic treatment, Group 6: Combined treatment with Ziziphus jujube hydroalcoholic extract and Pistacia atlantica gum, Group 7: Combined treatment with Lactobacillus casei probiotic and Pistacia atlantica gum hydroalcoholic extract, Group 8: Combined treatment with Lactobacillus casei probiotic and Ziziphus jujube hydroalcoholic extract, Group 9: Triple combination treatment with Ziziphus jujube hydroalcoholic extract, Pistacia atlantica gum, and Lactobacillus casei probiotic, Group 10: Mesalazine treatment. In all groups except the negative control group, colitis was induced in mice by injecting 100 µL of 4% acetic acid, and treatment was initiated upon the onset of disease symptoms. After 40 days of treatment, the

Result:: The results showed that each of the therapeutic agents, either alone or in combination with each other and mesalazine, led to a reduction in the levels of myeloperoxidase enzyme, nitric oxide, and the expression and production of IL-1β, IL-6, and TNF-α cytokines, as well as a reduction in intestinal tissue lesions. It was also evident that the combination therapy was more effective than the treatment with each individual agent alone.

Conclusion:: Based on the findings of this study, it appears that Lactobacillus casei probiotic, along with the herbal compounds of pistacia atlantica gum and ziziphus jujube, possess desirable anti-inflammatory properties and can play a central role in the regeneration of intestinal tissue in ulcerative colitis. Therefore, a combination of these therapeutic agents can be used as an adjunctive treatment alongside conventional medications for managing the disease.

G-1784

Comparison of stem cell therapy and immunotherapy in Multiple sclerosis (MS) patients: a systematic review and meta-analyses

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Introduction:: This systematic review and meta-analysis aimed to compare the efficacy and safety of stem cell therapy and immunotherapy in patients with multiple sclerosis (MS).

Method & material:: Four databases (PubMed [Medline], Scopus, Web of Science, Embase) were searched for original clinical trials published until January 2023. The selection criteria were based on the PICOT structure and studies were assessed for risk of bias using the Cochrane bias risk tool. Statistical analyses were performed in STATA software version 17.

Result:: Six clinical trials involving 407 patients were analyzed. The results demonstrated a more significant decrease in Expanded Disability Status Scale (EDSS) scores among MS patients treated with stem cell therapy than those treated with immunotherapy. Stem cell therapy resulted in a decrease in EDSS by 3.11 and 3.19 for follow-up periods lower than 12 months and equal to or greater than 12 months, respectively. Conversely, immunotherapy was associated with an increase in EDSS. Moreover, a higher percentage of no evidence of disease activity (NEADA) was observed among patients who underwent stem cell therapy compared to those who received immunotherapy.

Conclusion:: This meta-analysis provides evidence supporting the superior efficacy of stem cell therapy over immunotherapy in improving disability status and achieving disease stability in MS patients. Further large-scale, randomized controlled trials are needed to confirm these findings and explore the underlying mechanisms.

G-1785

Combination of Met kinase inhibitors and doxorubicin has a synergetic effect against pancreatic ductal adenocarcinoma cells: Involvement of reactive oxygen species

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Introduction:: Pancreatic cancer continues to be one of the most aggressive and lethal malignancies across the world. MET oncogenic activity is highly influential in several types of malignancies such as pancreatic ductal adenocarcinoma (PDAC). In the present study, we investigated the sensitivity of PDAC cells to combination treatment with MET inhibitors including crizotinib and cabozantinib with doxorubicin in two- and three-dimensional cell culture models.

Method & material:: MTT assay was conducted to examine the antiproliferative effects of drugs against AsPC-1, Suit-2 and Mia-Paca-2 pancreatic cancer cells in two-dimensional cell culture. The combinations were also tested against EBC-1 lung cancer cells with MET gene amplification. Combination index (CI) was mathematically calculated by Calcusyn software. Three-dimensional spheroid cell cultures of Suit-2 cells were generated based on the liquid overlay technique in 96-well plates. The growth inhibitory effect of drugs in the 3D cultures was examined by acid phosphatase (APH) assay. Generation of reactive oxygen species (ROS) in treated cells was measured by a fluorimetric assay using diacetyl-dichlorofluorescein (DCFH-DA).

Result:: CI values calculated in PDAC as well as EBC-1 cells showed that both crizotinib and cabozantinib had a synergistic effect with doxorubicin. CI values were as low as 0.54. Additionally, combined treatment of crizotinib and cabozantinib with doxorubicin led to significant reduction of cell viability in Suit-2 spheroids in a dose-dependent manner. Furthermore, combination of both MET inhibitors with doxorubicin significantly increased ROS production in Suit-2 cells.

Conclusion:: Our results suggest that combination of MET inhibitors with doxorubicin may be a reasonable strategy for development of better therapeutic options in pancreatic cancer.The authors wish to thank the support of the National Institute for Medical Research Development, Tehran, Iran (NIMAD, Grant number: 957652).

G-1787

Maximizing Antibacterial Efficacy: A Study on ZnO Nanoparticle–Coated Carbon Under UV–C Radiation

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Introduction:: The increasing rate of microbial resistance is driving research towards alternative antibacterial methods. The photocatalytic properties of Zinc Oxide (ZnO) nanoparticles and the antimicrobial potential of Ultraviolet (UV) radiation are well- acknowledged. This study aims to investigate the bactericidal efficacy of ZnO nanoparticle- coated activated carbon particles under UV light and determine the optimal concentration of ZnO nanoparticles for this application.

Method & material:: Activated carbon particles were synthesized and coated with ZnO nanoparticles at three different concentrations (0.5 M, 1 M, 1.5 M). The structural analysis of the particles was performed using Scanning Electron Microscopy (SEM) and Energy-Dispersive X-ray (EDAX) spectroscopy. A comparative analysis of the bactericidal effect of UV light alone, UV light in conjunction with uncoated activated carbon particles, and UV light with ZnO nanoparticle-coated activated carbon particles was performed on specific bacterial strains at varying distances and exposure times.

Result:: The ZnO nanoparticle-coated activated carbon particles significantly enhanced the bactericidal potency of UV light, with the highest efficacy observed at 0.5 M ZnO nanoparticle concentration. SEM and EDAX confirmed a better and more uniform distribution of ZnO nanoparticles at this concentration. The bactericidal effect was more pronounced at shorter radiation intervals and farther distances compared to UV light alone.

Conclusion:: ZnO nanoparticle-coated activated carbon particles, particularly at a concentration of 0.5 M, can significantly increase the antimicrobial efficiency of UV light. This discovery provides a promising direction for developing effective antimicrobial applications, particularly in areas where traditional antibacterial methods are less effective. However, further research is required to investigate these effects in diverse microbial populations and under different environmental conditions.

G-1788

The Correlation between HIV–Induced Malnutrition and Oxidative Stress

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Introduction:: HIV -induced malnutrition and oxidative stress are closely related. Malnutrition and loss of appetite caused by HIV infection can lead to a decrease in the intake of foods that contain antioxidants, which are essential for the body's defence against oxidative stress. Antioxidants help neutralize free radicals and reactive oxygen species (ROS) produced during metabolic processes. When there is an imbalance between antioxidants and oxidants in cells and tissues, it leads to excessive production of oxidative free radicals and ROS.

Method & material:: In this study, by using keywords and various sources, the factors that lead to malnutrition and decreased appetite in HIV-positive individuals and their significant role in creating oxidative stress will be discussed.

Result:: Excessive production of free radicals and ROS can cause damage to cellular structures such as proteins, lipids, and DNA. This damage can disrupt cellular functions and lead to changes in cell signalling, metabolism, and transport mechanisms. In people with AIDS, this can further compromise the immune system, leading to opportunistic infections and other complications.

Furthermore, HIV infection itself can also cause oxidative stress through direct effects on immune cells. HIV-infected cells produce ROS as part of their normal function, and the virus can also induce oxidative stress indirectly by activating inflammatory pathways in immune cells.

Conclusion:: Therefore, individuals with HIV/AIDS need to maintain a healthy diet rich in antioxidants to help reduce oxidative stress and its damaging effects on the body. Additionally, antioxidant supplementation may be recommended in some cases to help counteract the effects of HIV-induced malnutrition and oxidative stress

G-1789

The effect of nanomaterials on embryonic stem cell neural differentiation: A systematic review

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Introduction:: Humans' nervous system has a limited ability to repair nerve cells, which poses substantial challenges in treating injuries and diseases. Stem cells are identified by the potential to renew their selves and develop into several cell types, making them ideal candidates for cell replacement in injured neurons. Neuronal differentiation of embryonic stem cells in modern medicine is significant. Nanomaterials have distinct advantages in directing stem cell function and tissue regeneration in this field. We attempted in this systematic review to collect data, analyze them, and report results on the effect of nanomaterials on neuronal differentiation of embryonic stem cells.

Method & material:: International databases like PubMed, Scopus, ISI Web of Science, and EMBASE were searched for available articles on the effect of nanomaterials on neuronal differentiation of embryonic stem cells (up to April 2022). After that, screening (by title, abstract, and full text), selection, and data extraction were performed. Also, the quality assessment was conducted based on the STROBE checklist.

Result:: In total, 1390 articles were identified and assessed, and then only 27 articles were found eligible to be included. Eight studies used 0D nanomaterials, ten used 1D nanomaterials, one reported 2D nanomaterials, and 8 demonstrated the application of 3D nanomaterials. The main biomaterial in studies was polymer-based composites. Three studies reported the negative effect of nanomaterials on neural differentiation

Conclusion:: Neural differentiation is crucial in neurological regenerative medicine. Nanomaterials with different characteristics, particularly those cellular regulating activities and stem cell fate, have much potential in neural tissue engineering. These findings indicate a new understanding of potential applications of physicochemical cues in nerve tissue engineering.

G-1790

The Study of Diagnosis the lung cancer in CT-Scan images by image processing

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Introduction:: Lung cancer is one of the dangerous and life taking disease in the world. However, early diagnosis and treatment can save life. Although, CT scan imaging is best imaging technique in medical field, it is difficult for physicians to interpret and identify the cancer from CT scan images. The purpose of this study was to design and introduce a diagnostic software for diagnosis of lung cancer with CT-Scan images.

Method & material:: This research was a software designing study that many CT-Scan images that used in the past articles were analyzed with the software designer. The designed software was in MATLAB . In this study ;we used image processing techniques such as ; noise removing , edge denotation , separate of area with high density and contrast increasing for analysis type of nodules . Based on the evidences from this analysis, radiologist could make decision with high accuracy and the results of these diagnostics were analyzed and compared with another diagnosis tests.

Result:: Designed software enables the present CT-Scan images analyzes them pixel by pixel. This software in addition evaluates all the areas and shown them without viewer diagnosis completely . Final results of diagnostic software analysis showed high sensitivity.

Conclusion:: Contemporary assessments of morphological and physiologic traits of vessels by a computer aided diagnostic software can improve the radiologist's precision and decrease reading time of bulk images of CT-Scan . Using this software to increase the accuracy of the detection is suggested

G-1791

Investigating obesity effect on the condition of patients with moderate traumatic brain injury

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Introduction:: Based on the latest report from the World Health Organization (2018), 13% of adults worldwide are obese, indicating a significant burden of disease. It has been reported that overall mortality among individuals with overweight/obesity, as measured by body mass index, is lower compared to their normal-weight counterparts (the obesity paradox). On the other hand, traumatic brain injury is also a global public health concern and a major cause of mortality and disability. The present study was conducted to investigate the association between traumatic brain injury and the obesity paradox, with the aim of determining the impact of obesity on the outcomes of patients with moderate traumatic brain injury.

Method & material:: This study was a descriptive-analytical study conducted in 1402 at Al-Zahra Hospital in Isfahan, with the ethics code IR.MUI.MED.REC.1399.1049. A total of 251 patients with moderate traumatic brain injury were randomly selected for investigation. The height, weight, and functional independence (FIM) of the patients at admission and discharge time, and the Glasgow Outcome Scale Extended (GOSE) were measured and analyzed using SPSS version 16 software.

Result:: The results of the study indicated that out of the patients, 218 (88%) were male, with a mean age of 39±17 years. The median level of consciousness in patients was 11. Among patients with moderate traumatic brain injury, 91 individuals (36%) experienced weight loss during hospitalization. Significant differences were observed between the mean changes in body mass index and GOSE and FIM Motor scores in patients with moderate traumatic brain injury (P0.05).The results indicated that in patients with moderate traumatic brain injury, the average FIM Motor score was lower in patients with weight gain compared to those with weight loss. The odds ratio for recovery in FIM Motor was 0.32. The results of GOSE also showed that the average GOSE score was lower in patients with weight gain compared to those with weight loss. Additionally, the odds ratio for recovery in GOSE was 0.90.

Conclusion:: Body mass index is an important risk factor in the treatment of patients with traumatic brain injury, and patient weight should be monitored.

G-1792

Investigating the effectiveness of a poly-herbal formulation from traditional Persian medicine (TPM) in gastroesophageal reflux disease (GERD), a double-blinded randomized clinical trial

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Introduction:: Gastroesophageal reflux disease (GERD) affected nearly 10- 20 % of the world's population. Due to the complications associated with GERD, as well as complications of long-term treatment with current medications, and global demand toward Complementary and Alternative Medicine (CAM), this study evaluated the efficacy of a poly-herbal formulation known as Mastic pill cited in Qarabadin-e-salehi, previously reformulated and standardized, in a double-blinded randomized clinical trial.

Method & material:: Mastic pill include 2 parts of Bunium persicum (Boiss.) B.Fedtsch. fruit, 0.75 parts of Zingiber officinale Roscoe rhizome, 2 parts of Elettaria cardamomum (L.) Maton fruit, and 2 parts of Pistacia lentiscus (L.) gum. The plants were powdered and mixed with an electric grinder and the 500 mg of the mixture powder was filled in each capsule. Placebo was also prepared from roasted starch with 10% of the mixture of plants present in the formulation and filled in identical-looking capsules. Participants were recruited from February 2020 to March 2021 from the teaching clinic in Shiraz . The diagnosis of gastric reflux was confirmed by Specialists in Gastroenterology based on the three positive symptoms from heartburn, regurgitation, dysphagia, nausea/vomiting, bloating, and abdominal pain. Patients taking medications that can cause or exacerbate reflux were excluded. Patients received four capsules of drug/placebo beside Omeprazole capsule.

Result:: 34 patients in the drug group and 34 patients in the placebo group completed the study. Reflux, and heartburn severity score as well as disruption of personal life score significantly reduced in both groups, but it was more remarkable in the drug group (P-value = 0.0001). Dysphagia, early satiation, and nausea significantly reduced in the drug group while the placebo group showed no improvement. Our results suggest that constipation, bloating, belching, and odynophagia did not significantly improve in none of the groups.

Conclusion:: Conclusion:: This study showed that Mastic pill is effective against GERD. Further detailed in vitro and in vivo studies aimed at discovering the mechanism of action of this formulation and clinical studies involving a larger population will be necessary to explain and confirm the results obtained in the present study.

G-1793

Comparison of the severity of COVID-19 in reproductive age and postmenopausal women: A Cross-Sectional Study

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Introduction:: The COVID-19 pandemic caused by the SARS-CoV-2 virus quickly progressed and affected the world population (1). Current studies on biological sex and COVID-19 have indicated that the mortality rates of males are 1.7 times higher than those of females. One explanation for these female-male differences includes the presence of Reproductive steroids, such as estrogens and progesterone, and their interaction with the immune system to protect against infection (2). However, there are limited clinical studies to demonstrate the true effect of menopause on the presentation and outcomes of COVID-19. Therefore, our objective was to address how menstrual status and sex hormones mechanisms can protect women against COVID-19.

Method & material:: This cross-sectional study was conducted on women with COVID-19 history who were referred to clinics affiliated with Shahid Sadoughi University of Medical Sciences in Yazd, Iran, between July 2021 and August 2021. Via convenience sampling, women were divided into non-menopausal (n=238) and menopausal (n=112) women based on their menstrual status. Also, the criterion for assessing the severity of COVID-19 was considered outpatient or inpatient treatment. Baseline data were recorded after verbal consonants via telephone interview. Data was analyzed using statistical software SPSS-22, and descriptive statistics (mean and standard deviation), chi-square and univariate and multivariate logistic regression analyses were performed. P 0.05 was considered statically significant.

Result:: In this study, 350 patients were analyzed; 53 (15.1%) were hospitalized and 297 (84.9%) were treated as outpatients. Out of 53 hospitalized patients, 11 (20.7%) were admitted to the intensive care unit. Univariate logistic regression analysis showed that menopause age was significantly related to the COVID-19 severity (P=0.05). Based on multivariable logistic regression analysis, not only menopause age (P=0.002) but also menarche age less than or equal to 11 years old was statistically significant with COVID-19 severity (P=0.03).

Conclusion:: In the present study, menopause and menarche age less than or equal to 11 years old were independent risk factors for COVID-19 severity in patients.

G-1794

The prognosis of COVID-19 patients (Mortality, ICU admission, and Mechanical Ventillation) using data mining tecniques

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Introduction:: On December 31, 2019, the World Health Organization (WHO) reported an outbreak of unknown pneumonia cases in Wuhan, China. This ailment was later designated as the 2019 coronavirus disease (COVID-19) by the WHO. Our study aims to identify various risk factors and establish a diagnostic framework for predicting outcomes in COVID-19 patients, including mortality, ICU hospitalization and its duration, progression to critical condition, and ventilator use. Data for this investigation was sourced from the cohort at Khurshid Hospital in Isfahan.

Method & material:: In this study, a dataset comprising 630 individuals and 60 distinct characteristics was analyzed. This cohort contained detailed hospital records of patients, capturing data on underlying acute diseases, symptoms, and laboratory results from admission until discharge or death. Feature selection was initially undertaken based on statistical tests, utilizing the P-value as an index to determine the significance of the relationship between variables and outcomes. Subsequent to this feature selection, the k-nearest neighbors (k-NN) classifier was employed to predict binary outcomes. Following this, the Group Method of Data Handling (GMDH) was applied, which, beyond feature selection, also elucidated interactions amongst them. For optimal prediction outcomes, balanced data was employed during both the feature selection phase and the application of GMDH and k-NN methodologies.

Result:: Evaluation metrics utilized in this study include fitness (comprising average sensitivity, specificity, and accuracy), the Area Under the Curve (AUC), and Matthew's Correlation Coefficient (MCC). For prognosticating death, these metrics yielded values of 0.92, 0.88, and 0.82, respectively. For predicting hospitalization in the intensive care unit, the metrics were 0.88, 0.85, and 0.68. Notably, the Group Method of Data Handling (GMDH) outperformed the k-nearest neighbors classifier in the analysis.

Conclusion:: Utilizing this diagnostic system in hospitals has led to enhanced management of acute conditions, optimized allocation of hospital resources and equipment to patients, and prioritized admission of high-risk individuals to the intensive care unit.

G-1795

A Comprehensive Study of Telenursing as A New Alternative for Anxiety Management and Quality of Life in Patients with Covid-19.

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Introduction:: The high prevalence of covid-19 and the occurrence of stress and anxiety reduce the quality of life in patients with covid-19, so Telenursing is considered important to improve the quality of life in these patients. The present research was conducted in order to systematically review the studies related to remote nursing, anxiety and quality of life of patients with covid-19 in 2023.

Method & material:: This article is a systematic review research that was conducted in 2023 through searching in PubMed/Medline, Scopus and Google Scholar databases and using key words and syntax ((((telenursing)OR (Health Services Administration) OR (telemedicine)) AND (anxiety)) AND (quality of life of patients)) AND((covid19) OR (sars-cov-2)) in the period of 2019 to the end of October 2022. After reviewing the retrieved texts and removing duplicate and unrelated items in the total article, they were selected for review.

Result:: The review identified 21 acceptable articles (18 English articles and 3 Persian articles) reviewed out of a total of 256 attributed objects. The findings showed that telenursing can be an effective approach for reducing anxiety and improving the quality of life of patients with covid-19.

Conclusion:: Following an investigation of the literature, it was discovered that telenursing education can lower the anxiety of corona patients while also improving their quality of life.

G-1799

Bispecific Antibodies for Dual Immune Checkpoint Modulation in Cancer Immunotherapy: Review of Recent Advances

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Introduction:: Advances in antibody engineering have led to the generation of more innovative antibody drugs, such as bispecific antibodies (bsAbs). Following the success associated with blinatumomab, bsAbs have attracted enormous interest in the field of cancer immunotherapy. There are several mechanisms of action upon which bsAbs have been exploited. Accumulating experience on checkpoint-based therapy has promoted the clinical transformation of bsAbs targeting immunomodulatory checkpoints. Especially, Immune checkpoint inhibitors (ICIs) have shown unprecedented benefits in various adult cancers. In this review we analyzed the mechanisms by which bsAbs target immunomodulatory checkpoints and their emerging applications in cancer immunotherapy.

Method & material:: PubMed and Google Scholar search engines were used to find related articles and drug approvals. Review articles and original articles (in-vitro studies, in-vivo studies, and clinical trials) were obtained. The keywords used for searching are: bispecific antibody, cancer, checkpoint, co-stimulation, immuno-oncology, immunotherapy, Antibody–drug conjugate, tumor microenvironment, clinical trial.

Result:: The checkpoint-targeted bsAbs are mainly divided into three categories: targeting dual inhibitory checkpoints (1); targeting co-stimulatory and inhibitory checkpoints (2); and targeting immunomodulatory checkpoints and non-checkpoint targets (3). In recent years, cadonilimab, the first approved bsAb targeting dual inhibitory checkpoints, was authorized by the National Medical Products Administration. In summary, the bsAbs targeting co-stimulatory and inhibitory checkpoints are all under evaluation in the early stages of clinical trials. A deeper understanding of how co-stimulatory signals work and their roles in the biology of T cell function will be helpful in developing this type of agents.

Conclusion:: BsAbs targeting immunomodulatory checkpoints benefit from the successful experience of ICIs and advanced biotechnology of antibody generation. With the ongoing research in the mechanism of the bsAbs and the continuous optimization of bispecific molecule constructs, bsAbs are expected to be a novel agent for cancer therapy.

G-1800

Design, Synthesis, Biological Evaluation and Structure–Activity Relationships of New Derivatives of 1,4-naphthoquinone bearing Triazole groups as Multitarget Kinase Inhibitors

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Introduction:: Cancer is a complex disease with a wide range of cellular and genetic abnormalities. In the past few decades, protein kinases have emerged as essential targets for treatment of cancer. Development and progression of cancer rely on several factors. Therefore, anticancer agents that target several kinases may constitute important therapeutic assets. In this study, a new series of 1,4-naphthoquinone derivatives connected to triazole groups were designed, synthesized, and their biological activity was investigated.

Method & material:: 1,4-Naphthoquinone linked to 1,2,3 triazole hybrids were synthesized via a four-step synthetic strategy and all structures were properly examined with a variety of spectroscopic techniques, including IR, 1H-NMR, 13C-NMR, and MS. Antiproliferative effects of synthetic compounds were assessed against EBC-1 (human lung adenocarcinoma cells), HT-29 (Human colorectal adenocarcinoma cells), Mia-Paca-2 (human pancreatic cancer cells), AsPC-1 (human pancreatic cancer cells) and MCF-7 (human breast cancer cells) cell lines by MTT assay. The activity of target compounds was also investigated against a panel of 30 protein kinase using a radiometric assay at the concentrations of 10 μM.

Result:: Ten new derivatives of 1,4 naphthoquinone linked to the triazole group with different benzyl derivatives were synthesized (Figure 1). All compounds showed very good antiproliferative activity against the EBC-1 cell line and several compounds demonstrated good activity against HT-29, Mia-Paca-2, and AsPC-1cell lines. Compound 4a showed encouraging inhibitory activity against EBC-1 and AsPC-1 cell lines (IC50 values of 5.1 and 27.8 μM respectively). This derivative also demonstrated a multitarget profile and excellent inhibitory activity towards FLT4 (VEGFR-3), CDK-2/cyclinA, and PDGFRA (PDGFRα) kinases.

Conclusion:: 1,4-Naphthoquinone derivatives bearing triazole groups possess interesting anticancer profiles by inhibiting several important oncogenic kinases and may represent promising cancer-targeted therapies.

G-1800

Design, Synthesis, Biological Evaluation and Structure–Activity Relationships of New Derivatives of 1,4-naphthoquinone bearing Triazole groups as Multitarget Kinase Inhibitors

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G-1803

Design, Synthesis, Biological Evaluation and Structure–Activity Relationships of New Derivatives of 1,4-naphthoquinone bearing Triazole groups as Multitarget Kinase Inhibitors

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Introduction:: Leukemia is the most common childhood malignancy caused by abnormal blood-forming cells and had a very high mortality rate due to the lack of effective treatment. Due to advances in treatment in recent years, a proportion of people may have a longer survival time than others or even recover if diagnosed early. In this situation, the use of cured models compared to classic statistical models works better. Considering the importance of prognostic factors associated with the survival of children with leukemia, the aim of this study was to identify the factors affecting their survival in Golestan Province.

Method & material:: This retrospective cohort study was conducted based on the content and information obtained from the records of 161 patients with acute lymphoblastic leukemia (ALL) under the age of 16 years from September 1997 to September 2016, who were followed up until 2021. In the present study, important factors influencing patient survival were first identified using a random survival forest method and the factors affecting short-term and long-term survival were investigated using a mixture cure models. The R software and the smcure package were used to analyze this data

Result:: From a total of 161 children with ALL, 57 (35.4%) died and 104 (64.6%) recovered, with a median follow-up of 69.43 months. 92 (57.1%) patients were boys and 69 (42.9%) were girls, and 130 (80.7%) were children aged 1-9 years. Based on the random survival forest model, the variables of white blood cell count (WBC), relapse, rheumatoid signs, and mediastinal mass were identified as important variables for patient survival and entered into a univariate mixture cure model. Based on the mixture cure model, WBC, relapse and rheumatoid signs were identified as factors affecting short-term survival and relapse was identified as affecting long-term survival.

Conclusion:: Relapse has been identified as an important factor for both individuals with long-term survival (cured) and individuals with short-term survival.

When there is data with cured patients, it is important to use models that consider the cure rate in data analysis, and identifying the factors that affect patient survival will perform better than classical models

G-1805

Check the use of the method Computer-aided drug design (CADD) To achieve anti-cancer drugs

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Introduction:: Due to the increase in cancer cases and deaths, the need to treat and manufacture anti-cancer drugs has become necessary, and as a result, the supply of a suitable drug combination to the market is facing many challenges that require a lot of time, budget and work. The average cost of drug discovery and design from 2009 to 2018 is reported to be 2.8 billion dollars. Therefore, the use of intelligent software to help discover or optimize pharmaceutical compounds is a new approach to overcome these economic and time challenges. (CADD) computer aided drug design is a useful and fast tool for designing from the structure or ligand. In this method, with the help of computer simulation, the molecules that have the most effect and the least side effects are identified, which significantly saves design time and costs, and the price of manufactured drugs will also be cheaper.

Method & material:: This research is a systematic review, by searching for words such as CADD, Computer-aided drug design, cancer and anti-cancer drug design in Irandoc, Magiran, Google Myscholar, PubMed SID, ScienceDirect, ProQuest and Ovid databases were reviewed with the entry criteria of access to the original articles, English and Farsi, in the period from 2010 to 2023. In the end, among the 100 articles obtained, 25 articles were evaluated with the checklist of review articles.

Result:: Due to the increasing number of cancer cases and the time-consuming development of new drugs in common laboratory methods, the design of cancer drugs It is a very complicated, expensive and time-consuming process, so it is necessary to use a method that has less cost and time. By using computer software, the cost and time limit can be overcome. By using the CADD method, drugs with high effectiveness and less side effects can be obtained.

Conclusion:: An effective strategy for the design of anticancer drugs is the use of CADD, which is very important due to the reduction of costs and the acceleration of the drug design process.

G-1807

Protective effect of Gallic acid against anxiety-like behavior, cognitive impairment, and long-term potentiation deficits induced by scopolamine

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Introduction: Alzheimer's disease (AD) is a common and progressive brain disorder that affects memory, cognition, and behavior. There is no cure for AD, but some treatments can help manage symptoms and slow down the disease progression. Gallic acid (GA) is a natural compound that has antioxidant, anti-inflammatory, and neuroprotective properties. GA can be found in various foods, such as fruits, nuts, and berries. GA has been shown to improve learning and memory, reduce amyloid-beta levels, and decrease anxiety and depression in AD models. Scopolamine is a drug that induces cognitive impairments and cholinergic dysfunction in animals. Scopolamine also alters oxidative stress status and synaptic plasticity in the brain. This study aims to examine the protective effects of GA against scopolamine-induced cognitive impairments, anxiety, synaptic disruption, and oxidative stress in rats. The study will use behavioral tests, biochemical assays, and electrophysiological recordings to evaluate the effects of GA on scopolamine-treated rats.

Method & material:: Rats were assigned to five groups: Each group was divided into two subgroups for behavioral (MWM,EPM,PAT) and electrophysiological tests. Behavioral test such as passive avoidance test, moris water maze, elevated plus maze were done. also electrophysiological test was done to asses LTP. To asses the anti oxidant capacity, FARP assay, MDA assay and NO assay tests were done

Result:: As result of the test we found that:.The administration of the different doses of GA improved STL in the memory impairment model induced by scopolamine.The administration of different doses of GA improved spatial learning and memory function, in the scopolamine-induced memory impairment model.The acute administration of GA increased the open arms entries and time in EPM.The acute administration of GA increased the antioxidant capacity of brain tissue in FRAP assay.The acute administration of GA decreased the MDA levels in serum.The acute administration of GA decreased the nitrite levels

Conclusion:: In this study, we showed that consumption of GA at doses of 100 and 200 mg/kg for 21 days could rescue the growth and behavioral alteration, LTP impairment, and cognition deficit in adulthood in a Scopolamine induced memory impairment. Our results show new approaches for better mechanistic research on the preventive role of GA in neurological disorders, especially Alzheimer's disease

G-1810

The relationship between the type of profession and roles of personnel as well as the type of healthcare facilities with the prevalence of COVID-19 among frontline workers in the northern region of Khuzestan province

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Introduction:: The type of profession, roles, and the type of facilities where employees work can play a determining role in their susceptibility to the disease. this study aimed to investigate the relationship between the type of profession and healthcare facility and the prevalence of COVID-19 among employees working in primary healthcare centers in the northern region of Khuzestan province.

Method & material:: The present study is a descriptive-analytical cross-sectional research conducted in 1400 on 599 employees of primary healthcare level in 6 cities. The participants were selected through a multistage and combined sampling method (proportional stratified random sampling). The study was conducted using the standard questionnaire of the World Health Organization. The reliability of the questionnaire was assessed using Cronbach's alpha. The data were analyzed using descriptive statistics and Poisson regression. It should be noted that since the prevalence rate was higher than 10% and the odds ratio (OR) for examining the relationship was overestimated at this prevalence rate, the appropriate effect size index, namely prevalence ratio (PR), was used.

Result:: The prevalence rate among employees (95% CI: 72.0 to 79.0) was 75.6%. There was a significant relationship between the type of profession and expertise of the employees and the prevalence of the disease (Pvalue ≤ 0.05). The rate of disease prevalence among Clinical workers was higher than among community health workers and administrative and support personnel, and the effect size of the prevalence ratio among clinical workers compared to community health workers was not significant (PR=0.87, 95% CI: 0.78 to 0.96), but compared to Administrative and support personnel showed a stronger relationship (PR= 0.77, 95% CI: 0.63 to 0.94). There was no relationship between the type of centers and the prevalence of the disease (Pvalue 0.05). There was no significant difference in the rate of disease prevalence among the employees working in the centers compared to the clinics (PR= 0.97, 95% CI: 0.85 to 1.11) and health houses

Conclusion:: The prevalence of COVID-19 was higher among Clinical staff compared to other staff members. Managers, through staff training, providing necessary equipment, and closely monitoring adherence to health protocols by employees, can play a crucial role in reducing the spread of the disease, especially among individuals with high-risk professions and specializations.

G-1812

Minor wound with major complication in a child: Bowel Gangrene associated with viscerocutaneus loxoscelism

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Introduction:: The brown recluse spider, a member of the Loxosceles genus, produces necrotic venom, which causes a range of clinical manifestations, from localized dermonecrotic lesions to fatal systemic reactions.

Herein,we describe a 15-month-old girl with systemic complications from this spider bite.

Method & material:: A 15-month-old girl, a known case of short bowel syndrome, developed systematic reactions such as dermonecrotic lesion on the left lower quadrant of the abdomen, septic shock, acute renal failure, peritonitis,intestinal necrosis, and resection.A diagnostic laparotomy was utilized three times after 36 hours of the possible bite. random donor platelets, packed red blood cells, fresh frozen plasma, and intravenous immune globulin were accomplished.

Result:: First time the surgeon suspected appendicitis but found no inflammation. Second-time peritonitis was discovered, but no short bowel ischemia was reported. In the last surgery, necrosis developed, the abdomen became guarded, and the intestine was resected.The colostomy bag was closed after one month from the first surgery.The patient was stable with massive fluid therapy and antibiotics.The patient was discharged with short bowel syndrome and a prescription to receive antibiotics.

Conclusion:: The development of short bowel syndrome and peritonitis in an infant bitten by a brown recluse spider is extremely rare.To our knowledge, this is the first case of viscerocutaneus loxoscelism with bowel gangrene.Recognizing loxoscelism complications should be considered for managing patients and preventing complications, especially in infants.

G-1813

Challenges of nursing clinical faculty members: contract content analysis

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Introduction:: Although 50% of nursing education is done in the clinical environment, there have been numerous and almost constant challenges in this field, some of which are related to the lack and insufficient skills and lack of independence of trainers in the hospital. Recently, the plan of faculty members based in the hospital has been implemented in order to improve clinical nursing education, but it is associated with challenges and dissatisfactions. The purpose of this study is to explain the challenges of clinical faculty members.

Method & material:: In a content analysis study conducted in 2022, clinical faculty members were purposively selected and subjected to semi-structured interviews. The interviews were analyzed with the help of MaxQDA software. Data analysis was done using the conventional content analysis approach

Result:: Six main categories were extracted, which include the inefficient recruitment process (implementation problems of the recruitment process and deficiencies of upstream laws), neglected implementation laws (obstacles to the implementation of regulations, legal problems, incorrect implementation of laws, and lack of awareness of laws), the necessity of clinical faculty (reduction the distance between education and clinic, better education of the student), existing conditions of the faculty (increasing workload, becoming one-dimensional, facing the lack of culture in the hospital, violation of rights, ambiguity in roles, interpersonal conflicts), solutions and facilitators (constructive interaction, legal support, supportive atmosphere in the hospital, improvement of infrastructure).

Conclusion:: It is recommended that the policymakers of nursing education take into consideration the results of this study and, according to the suggested participation solutions, conduct a basic review to solve the legal and executive challenges of clinical faculty members.

G-1817

Examining the correlation between the consumption of SSRI medications and the severity of COVID-19 in patients hospitalized at Imam Hossein Hospital in Shahroud

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Introduction:: Considering the widespread prevalence of COVID-19 since 2019 worldwide, and the efforts of health authorities to find suitable and accessible drugs for the treatment and reduction of disease severity, as well as the known anti-inflammatory effects of selective serotonin reuptake inhibitors (SSRIs) and the availability of these drugs, their use in the treatment of COVID-19 has gained attention from physicians and health officials worldwide during this pandemic. Since there are limited studies on the relationship between the severity of COVID-19 and the use of SSRIs, this study aimed to investigate this association in hospitalized patients at Imam Hossein Hospital in Shahroud.

Method & material:: By examining the electronic records of 3027 hospitalized patients who were confirmed COVID-19 cases through RT-PCR testing, the association between the use of SSRIs, including Escitalopram, Citalopram, Fluoxetine, Paroxetine, Sertraline, and the severity of COVID-19 was assessed using the SPSS software and statistical tests such as Chi-square, t-test, and logistic regression.The severity criteria for COVID-19 were based on ICU admission, intubation, death, respiratory rate over 30 breaths per minute, and oxygen saturation below 93% as indicators of severe illness in each group. Ultimately, the severity variable was considered as a binary variable (0 and 1) based on the aforementioned multiple variables.

Result:: Among the 3027 COVID-19 patients, 155 individuals were using SSRIs. The results showed that 23.9% of SSRI users developed severe illness compared to 19.3% of non-users, but this difference was not statistically significant (P=0.161).After controlling for some confounding variables such as age, gender, underlying comorbidities, smoking status, and BMI, the regression model determined that the use of SSRIs reduced the risk of severe illness by 8%, but once again, this finding was not statistically significant (P=0.715).

Conclusion:: The results of this study indicated that the use of SSRIs led to a statistically insignificant reduction in the severity of COVID-19. It is hoped that further clinical trials will be conducted to determine the effect of using these drugs on disease severity.

G-1818

The Relationship between Sleep Quality and Headache Intensity in Migraine Patients

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Introduction:: Migraine is the second most common cause of headaches, which itself and its complications have a high burden on the community. On the other hand, it has been shown that there is an unrelated anatomical and neurophysiological structure between headaches and sleep, and therefore, a recognized association exists between specific headache diagnoses and sleep disorders, which should be considered in the pathophysiological investigations of headaches and sleep disorders . The aim of this study was to investigate the relationship between sleep quality and headache severity in patients with migraines.

Method & material:: The present descriptive cross-sectional study was conducted on 200 patients referred to the clinic and neurology ward of Ayatollah Rouhani Hospital in Babol, who were diagnosed with migraines by a neurologist. The patients completed three questionnaires: the Migraine Impairment and Disability Assessment (MIDAS), the Visual Analog Scale (VAS) to assess headache severity, and the Pittsburgh Sleep Quality Index (PSQI). Data were collected using SPSS software and analyzed using the Kruskal-Wallis and Mann-Whitney tests

Result:: Our study demonstrated that sleep quality was poorer in women compared to men. Women also exhibited poorer mental quality of sleep, sleep efficiency, and sleep disorders. Additionally, the major problems of patients were related to sleep onset delay and sleep duration. We also found that sleep disorders were more prevalent in migraine patients with aura compared to those without aura and It was more prevalent in male compare to women. Furthermore, sleep disorders were significantly higher in patients above 32 years of age in statistical terms and daytime dysfunction, based on the higher average score in patients below 32 years of age, was significantly higher in this age group. However, the findings showed that overall sleep quality was not associated with headache severity, duration of migraines, presence of aura, age, or severity of migraine disability.

Conclusion:: The findings of the present study showed that individuals with migraines generally have poor sleep quality. Poor sleep quality is more pronounced in women. Therefore, we recommend that in migraine patients, inquiries should be made about the quality of their sleep. This way, appropriate treatment can be provided to improve their quality of life.

G-1821

Multiple sclerosis and the incidence of venous thromboembolism: A systematic review and meta-analysis

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Introduction:: A number of studies have suggested that multiple sclerosis (MS) can be associated with serious vascular complications, for which pulmonary thromboembolism (PTE) is a potentially lethal complication. The purpose of this study is to establish a current literature-based estimate of the incidence of venous thromboembolism (VTE), deep vein thrombosis (DVT), and PTE in patients with MS (pwMS) due to the lack of systematic reviews and meta-analyses on this topic.

Method & material:: In this systematic review and meta-analysis, studies were assessed regarding the association between MS and the incidence of VTE. The studies were identified through a systematic search of major electronic databases spanning the period from 1950 to February 2022. A random-effects analysis was conducted to calculate the pooled effect size (ES) and 95% confidence intervals (CI) using STATA software.

Result:: Nine out of 4605 studies were included in the meta-analysis, with an overall sample size of 158,546 individuals. Meta-analysis revealed that the pooled incidence of VTE was 1.8% (95% CI:1.4-2.3) among pwMS. Also, there was an incidence of 0.9% (95% CI:0.4-1.4) and 1.5% (95% CI:1-2.2) for PTE and DVT, respectively in pwMS. Analysis showed MS would be significantly associated with a 2-fold increased risk of VTE (risk ratios (RR)= 2.12 (95% CI:1.53-2.93)).

Conclusion:: Although MS is not typically considered a major risk factor for VTE, the meta-analysis of cohort studies shows that MS has a relative association with an increased incidence of VTE. Future research should focus on the investigation of the effects of MS and its treatments on VTE risk, and also a full range of confounding adjustments will be needed.

G-1823

Epidemiological pattern of death in motorcycle crashes

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Introduction:: Motorcycles are economical and move more easily in crowded places, but they are unsafe vehicles. According to the report of the World Health Organization (WHO), about 1.4 million people die each year due to traffic accidents. Identifying the death pattern of motorcycle traffic accidents can help lawmakers to prevent traffic accidents. The purpose of this study was to determine some epidemiological aspects of death caused by motorcycle accidents, including accident mechanisms and injury patterns in the East and West Azarbaijan provinces of Iran.

Method & material:: Data on 2,461 motorcycle fatalities recorded in the Integrated Road Traffic Injury Registry System (IRTIRS) from 2005 to 2020 were analyzed. Variables related to victims and accidents, such as accident mechanisms, types of vehicles involved, types of injuries, and demographic characteristics of victims were examined. The data were analyzed using Stata v.17 statistical software.

Result:: Based on the results of the study, the most common accident mechanism among motorcyclists was a motorcycle accident with a vehicle and overturning. Among the fatal driving injuries, head injury is the most common trauma among motorcycle victims. In terms of the distribution of death by location, most of the victims died due to an accident outside the city. Also, the total number of deaths caused by motorcycle accidents decreased until 2016 and increased until 2020.

Conclusion:: Casualties caused by motorcycle traffic are still one of the most important public health problems in northwest Iran and have been increasing in recent years. Therefore, it is necessary to consider effective intervention programs to reduce the burden of motorcycle casualties. Interventions can include considering special laws and regulations, especially outside the city.

G-1825

The relationship between depression and inflammation: investigating the prevalence of depression in the elderly with arthritis in the rehabilitation clinic of Shiraz University of Medical Sciences

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Introduction:: Major depression (MDD) is one of the most important and common diseases worldwide, which causes disability in personal, social and economic fields and has serious and significant effects on the quality of life. Depression reduces the motivation of memory disorder, disorder of sensory habits and even in some cases, creating suicidal motives. Also, osteoarthritis is known as a common joint disease associated with pain and limitation of clinical function. As the world's elderly population is growing and studies show that only one-third respond to antidepressants, finding a more precise mechanism for treating depression is critical. Considering the role of the inflammation system in depression that has been investigated in previous studies, the current study deals with the prevalence of the relationship between depression and inflammation through clinical approaches. This study is particularly important in order to find solutions for more effective treatment of depression, emphasizing the role of the inflammation

Method & material:: This cross-sectional study was carried out in the rehabilitation clinic of Shiraz University of Medical Sciences. 88 elderly people with arthrosis were interviewed through the Hamilton depression questionnaire. They were divided according to severity and depression score.

Result:: The prevalence of depression in the elderly with osteoarthritis was 85.22%. That is, out of 88 people, 75 people had depression. (p value = 0.002) Also, in elderly patients with knee and spine osteoarthritis, the severity of depression was significantly higher than each one alone. (The average score of depression in both together was 23.91±6.762 for both together, the knee alone was 6.573±20.16 and the spine alone was 6.367±20.07. The depression score had significantly improved after starting the treatment of osteoarthritis. (From 18.94± 9.737 to 10.346±17.12 (with p value=0.045). Also, the prevalence and severity of depression was significantly higher in housewives, and those who used NSAID pain relievers had a higher severity and score of depression.

Conclusion:: Considering the high prevalence of depression that was not diagnosed before in the elderly with arthritis, it is very important to pay special attention to the elderly, especially the challenges of the mental field from the medical system. Also, the high prevalence of depression in an inflammatory disease sheds light on other mechanisms of the pathophysiology of depression, which can be considered in the medical and therapeutic discussions of this disease in the future.

G-1827

Examining the stress factors of clinical education from the point of view of Jahrom nursing and paramedical students

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Introduction:: Stress is a multidimensional and complex phenomenon that focuses on the dynamic relationship between a person and the surrounding environment. The hospital is considered as one of the most stressful work environments, because in this place, the issue of life and death of people is raised, that is why teaching and learning in this environment is also a stressful experience. On the other hand, the basic and important part of nursing education and the acquisition of skills and training of elite and competent personnel depends on the existence of the clinical education department. The present study aims to determine the stressful factors of clinical education from the point of view of nursing and paramedical students of Jahrom University of Medical Sciences in the year 2015 has been done.

Method & material:: In this descriptive-cross-sectional study in 2015, 232 students of different fields of Nursing and Paramedicine Faculty of Jahrom University of Medical Sciences participated. The data collection tool consisted of a two-part questionnaire: the first part: demographic information and the second part of the clinical stressors questionnaire, including 60 questions. The collected data were analyzed by Spss software version 16 with descriptive statistical methods (mean, frequency and percentage).

Result:: Out of the 232 students participating in the study, 210 filled out the questionnaires completely. Students identified humiliating experiences and unpleasant feelings as the most important stressors of clinical education. The instructor's warning in the presence of the patient's companions and classmates regarding humiliating experiences and performing difficult procedures, and the fear of getting low grades and the disproportion between the grades obtained and the level of activity of the students in the clinical departments were mentioned as the most important factors. Also, the results showed that the number of students did not fit with the clinical training environment, causing anxiety and stress by classmates and the instructor during the procedures, the lack of effective communication between the instructor and the student, the lack of clear training goals, the absence of a permanent instructor in the departments, and the lack of The presence of work experience of trainers in clinical

Conclusion:: The presence of challenging factors in clinical environments plays a very important role in weakening the teaching and learning process. Investigating these challenging factors with a management and root perspective can improve the quality of clinical education

G-1828

Investigating the relationship between temperament and academic motivation in medical students of Shahrood in the academic year 1400-1401

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Introduction:: Many factors such as family income, having hope, level of self-esteem, personality traits have an effect on academic motivation and individual differences are such that the amount of learning and academic motivation in identical twins is also different, and in the meantime, temperament is also different in identical twins. Different people are different and it affects a person's behavior and ability. Abu Ali Sina has divided the temperament into nine categories of temperament, four of which are referred to as mixed temperaments: hot and wet, cold and dry, hot and dry, cold and dry in humans. The type of temperament affects various factors, including memory, order and discipline, receptiveness, high energy, concentration, intelligence and learning, and each temperament has a certain ability in its natural state.

Method & material:: This descriptive-analytical study was conducted using a simple random method on 300 medical students in Shahrood in the academic year 1400-1401. The data was collected using a demographic, mood and academic motivation questionnaire. The data after collection was entered into SPSS 18. and analyzed with the help of descriptive (mean and standard deviation) and analytical (correlation and chi-square) statistics.This descriptive-analytical study was conducted using a simple random method on 300 medical students in Shahrood in the academic year 1400-1401. The data was collected using a demographic, mood and academic motivation questionnaire. The data after collection was entered into SPSS 2018.

Result:: In this study, the results showed that there is a significant relationship between gender and academic motivation, most of the people in the cold and warm section and moderate condition (60 percent) 180 and the average 16.56 ± 24 and in the dry and dry section also moderate condition (36.7 percent) 110 and They had an average of 4.15±6. In the questions related to academic motivation, in the internal motivation, the highest average was related to the sub-group of knowing 5.32±17.28, and in the external motivation, the highest score was related to the projected adjustment, and in the a motivation item, the average was 4.52±20.50. The grades were 12.76±5.72 and in general, the academic motivation of the students was 24.36±117.06, which shows the high academic motivation of the students. Finally, there was a positive and significant correlation between warm and cold temperament with academic motivation (P=0.01).

Conclusion:: The results of the present study showed that temperament can play a decisive role in the level of academic motivation of a person, which is suggested to improve the level of academic motivation in students by applying the teachings of traditional medicine and temper correction by health policy makers and also those in charge of education.Considering the mentioned studies and also the importance of being aware of students' mood as an important part of the society.

G-1830

Comparing the effects of bariatric surgery on fasting blood sugar and lipid profile in patients with prediabetes and type 2 diabetes

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Introduction:: In recent years, the rate of surgeries related to obesity is increasing, and studies show that these types of surgeries can affect the metabolic status of patients in addition to weight loss. This study was designed and conducted in order to compare bariatric surgery on fasting blood sugar and lipid profile in patients with prediabetes and type 2 diabetes.

Method & material:: In this retrospective cohort study, 154 patients were included (89 patients with type 2 diabetes and 65 patients with prediabetes) who underwent three types of obesity-related surgical techniques, including sleeve gastrectomy (SG).Roux-en-Y Gastric Bypass (RYGB) and One-Anastomosis Gastric Bypass (OAGB) were included in the study. Fasting blood sugar and lipid profile including cholesterol, triglyceride and low density lipoprotein were measured before surgery and six months after surgery

Result:: The average age of the participants was 42.14±11.10, and the three groups did not differ significantly in terms of age (P=0.08). Fasting blood sugar and triglyceride levels significantly decreased in all three types of surgery (SG, OAGB, and RYGB). Cholesterol level showed a significant decrease in SG (25.71±34.32) and RYGB (12.06±45.91) surgeries (p0.001). HDL level showed a significant increase only after SG surgery (3.60±13.28) (p=0.02). LDL level did not decrease significantly in any of the surgeries (0/05p).

Conclusion:: The findings of the present study showed that bariatric surgery can improve blood sugar and lipid profile in patients with prediabetes and diabetes type2. On the other hand, the effect of gastric sleeve surgery showed a greater effect on lipid profile than the other two surgeries.

G-1831

Examination of the mechanism and effect of Maggot Therapy as a Biotherapy method for Wounds, a systematic review.

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Introduction:: The increase in noncommunicable diseases, the lack of adequate health and medical services in less developed countries, the increase in motorcycling and poor road standards and so on... It causes skin injuries such as ulcers. Previous treatments rely on the availability of antibiotics, surgical interventions and complex dressings. maggot therapy as a bio-method compatible with biological substances and secretions can be a potential candidate for replacing antibiotics, surgical interventions and complex dressings. The aim of this systematic review study is to examine the mechanism and effect of maggot therapy as a Biotherapy method for wounds.

Method & material:: The review study was conducted in 2023 with advanced search in authoritative databases Pubmed, Scopus, Web of Science, Science Direct and Google Scholar search engine. The keywords searched included Maggot Therapy, Biotherapy and Wounds from a review of the 2013 papers through June 2023. After an initial search and then review of the titles and abstracts of the articles, unrelated titles were removed and the articles were examined by the JBI tools for the purpose of research.

Result:: At the first critical stage of Wound Care, larval secretions break down and liquefy dead tissue based on the use of proteolytic enzymes (trypsin and quasi-comotripsin collagenases) and swallow the resulting liquid substances, as the presence of lost tissues can disrupt the wound healing process, which are not a risk to healthy tissue. Enzymes are neutralized in contact with healthy tissue, and due to aerobic biology, the larva does not penetrate the underlying tissues, stimulating cellulose secretion and diluting bacterial concentrations while moving. Insect excretions and secretions have bactericidal components with therapeutic properties such as allantoin and urea, which lead to germs both at the site of the wound and in the digestive tract of the insect, these compounds also contribute to the healing process by providing an optimal environment for cells to grow. The larvae, while secreting sodium bicarbonate and increasing PH, lead to eradication and inhibition of biofilm.

Conclusion:: The results of this study show that Maggot Therapy is an effective biological method for rapid and safe reduction of damaged tissue degradation in the treatment of wounds and should be given more attention.

G-1833

Evaluation the anti-proliferative effects of wild-type Newcastle disease virus on lactate dehydrogenase secretion and induction of apoptosis in A549 cells

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Introduction:: One of the emerging ways to treat cancer is to use oncolytic viruses. The main oncolytic mechanism of viruses is the induction of cellular apoptosis, which involves both exogenous and endogenous pathways. The aim of the present study was to Evaluation the potency of wild-type Newcastle disease virus on lactate dehydrogenase secretion and induction of apoptosis in A549 cells

Method & material:: The present study was performed experimentally under cell culture conditions. Thus, after culturing A549 cell line, it was treated with different titer of wild-type Newcastle disease virus strain. Then, the oncolytic effects of the virus were evaluated using MTT (cell proliferation) tests, ROS production rate, LDH release rate, survival rate and caspase 8 and 9 protein levels to determine the path of apoptosis. In all tests, $p<0.05$ was considered as a significant level.

Result:: The results of the present study showed that wild-type Newcastle disease virus caused a significant decrease in proliferation (p0.05), a significant increase in the percentage of apoptosis (p 0.05), a significant increase level of ROS production (p 0.05) and significant increase in LDH release (p 0.05) compared with control group. Also, the evaluation of caspase 9 and 8 activity in A549 cells showed that the wild-type Newcastle disease virus increasing the level of caspase-9 activity (p 0.05) and had no significant effect on caspase 8 activity ($p = 0.65$).

Conclusion:: According to the results of the present study, it seems that the use of wild-type Newcastle disease virus can be considered as a strong candidate for the treatment of Lung cancer.

G-1834

Peripapillary and Macular Vascular Density in Neuromyelitis Optica Spectrum Disorders: A Case–control Study

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Introduction:: Neuromyelitis Optica Spectrum Disorders (NMOSD) are rare autoimmune conditions that mainly affect the optic nerve and require prompt diagnosis for effective treatment. Optical coherence tomography (OCT) and OCT angiography (OCTA) have been utilized in previous studies to diagnose NMOSD. The objective of this study is to assess the diagnostic potential of various OCT and OCTA parameters in identifying NMOSD and compare the results with a healthy control (HC) group.

Method & material:: This is a comparative study between NMSOD and HC. OCT and OCTA were employed to measure ganglion cell complex (GCC) layer thickness and vessel density (VD). Diagnostic accuracy was calculated using the area under the receiver operating characteristics curve (AUC).

Result:: A total of 60 patients were included in this study, with 30 diagnosed with NMOSD and the other 30 serving as HC. The NMOSD group exhibited a significant reduction in macular VD (mVD), with an average of 169.35 ±8.60, compared to HC with a mVmvaD of 185.10 ±5.72 (P= 0.001). However, there was no significant difference in pVD between the two groups, with HC having an average pVD of 247.30 ±15.81 and NMOSD having an average pVD of 245.20 ±14.31 (P= 0.592). Furthermore, the NMOSD group had significantly lower sectoral and average GCC thickness compared to HC (GCC in NMOSD = 601.30 ±100.62; GCC in HC = 729.92 ±45.19; P=0.001). The diagnostic accuracy of mVD sensitivity and specificity was estimated at 86.67(69.3-96.2) and 96.67 (82.8 - 99.9), while that of the GCC was 76.67 (57.7 - 90.1) and 93.33 (77.9 - 99.2).

Conclusion:: OCT and OCTA demonstrated retinal microvascular and structural changes that could aid in the diagnosis of NMOSD. The findings of this study suggest that these imaging techniques may be valuable tools in identifying NMOSD patients.

G-1835

Investigating the impact of nutrition on patients hospitalized in the ICU with Covid-19

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Introduction:: The nutritional status of patients infected with coronavirus-19 is still unknown. This study evaluates the clinical and nutritional characteristics of severe and critical patients with acute respiratory syndrome COVID-19 and examines the clinical outcomes.

Method & material:: This cross-sectional study was conducted in 2022 in Ghaem Hospital, Mashhad, Iran. Patients confirmed with a positive nucleic acid test with COVID-19 infection and were known as severe patients were included by simple random sampling method and pregnant patients under 18 years of age were excluded from this study. Clinical information and the effect of nutrition on these patients were examined. Data analysis was done using SPSS version 16.0. The P-value of 0.05 was considered to be statistically significant. This study was registered in the Research Ethics Committee of Mashhad University of Medical Sciences and was approved under the code IR.MUMS.MEDICAL.REC.1400.561. Informed consent was obtained from all patients before participating in this study.

Result:: In this study, 214 patients with COVID-19 hospitalized in the ICU were examined with a mean age of 61.1 ± 17.8 years. According to data, 74.8% of the patients had insufficient nutrition status. Mortality rate in patients was 68.4%, and 65.9% of patients underwent mechanical ventilation. In terms of the type of respiratory support performed, a statistically significant difference was observed between the two groups, and mechanical ventilation was the most frequent in the insufficient nutrition group (P0.001). Also, the duration of mechanical ventilation in the insufficient nutrition group was 5.3±0.6 days on average and in the sufficient nutrition group it was 2.3±3.4 days, and in this sense, there was a statistically significant difference between the two groups (P0.001). However, no significant statistical difference was observed between the two groups in terms of the duration of hospitalization in the ICU department (P=0.586).

Conclusion:: In conclusion, poor and insufficient nutritional status is a modifiable risk factor for poor prognosis among patients hospitalized for SARS-CoV-2 infection. Therefore, prevention, diagnosis and treatment of malnutrition should be included in the routine management of patients with SARS-CoV-2 infection. And Nutritional management in these patients can reduce the mortality rate and the economic burden on the country's health system.

G-1835

Investigating socio-economic relationship factors with birth weight disorders of infants born in 1401 in Khalkhal city

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Introduction: Birth weight is one of the main factors that determine the physical and brain development of the infant and can cause short-term and long-term complications for the infant. Weight disorders are affected by many factors. One of the most important factors is economic-social factors. Therefore, the current study was designed and implemented with the aim of investigating the relationship between socio-economic factors and birth weight disorders of infants born in 1401 in Khalkhal city.

Method & material:The present study was a descriptive cross-sectional study on 168 mothers who gave birth in the form of a census in Imam Khomeini Khalkhal Hospital.The data collection tool was a researcher-made questionnaire, which was confirmed for its validity and reliability. The collected data was entered into SPSS24 statistical software and analyzed via the Chi-square test. A p value of less than 0.05 was considered significant.

Result: The results of this study showed that the average age of the mothers was 6.71 ± 2.28 and 10.7% of the newborns (7.14% girls and 3.57% boys) were underweight (w2.5kg) and overweight (w4kg). Among the socio-economic variables examined in this research, satisfaction with economic status (k2: 6.17, p: 0.013) and type of pregnancy (wanted or unwanted) (k2: 9.07, p: 0.011) had a significant relationship with newborn weight disorders but in other variables, which include mother's employment, family's economic status, receiving financial aid, type of insurance and mother's education; No significant correlation was seen.

Conclusion:Considering that there is a relationship between socio-economic factors and an infant's weight. It is necessary to carry out educational, support and counseling programs for mothers in order to ensure the optimal well-being of the mother before pregnancy. As a result, it will be possible to improve the level of health of mothers and infants.

G-1839

Adherence to Self-care Behaviors in Hypertensive Patients during the COVID-19 Pandemic: Evaluation Using the Modified Version of the nHypertensionSelf-care Activity Level Effects Specific

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Introduction:: Hypertension is one of critical health problems worldwide. The prevalence and absolute burden of ihypertension are increasing. An effective and inexpensive way to control blood pressure s to adhere to self-care behaviors. This study was designed to evaluate the adherence of hypertension patients to self-care behaviors during the COVID-19 pandemic in Qom City, Iran.

Method & material:: This cross-sectional descriptive-analytical study was conducted in 2021 on 218 patients with hypertension by connivance sampling method in Qom City. The data collection tools in the current study were a demographic questionnaire and the revised version of the hypertension self-care activity level effects (H-SCALE) questionnaire. Data were analyzed using SPSS software, version 20 by the independent t-test, analysis of variance (ANOVA), Pearson's correlation coefficient, and chi-square test

Result:: The average self-care score of the participants was 79.32%. Among the subscales of self-care, the maximum obtainable score was 90.1% in non-smoking, 85.7% in adherence to medication, 42.8% in nutrition, 35.1% in weight management, and 28.5% in physical activity subscales. Among the demographic and clinical factors, only patients with academic education obtained a higher and significant self-care score

Conclusion:: The COVID-19 pandemic seems to affect the self-care of patients with hypertension. Considering the results of self-care, especially in the two subscales of weight management and physical activity, which received the lowest scores, educational programs and informing patients with blood pressure about the seriousness of the disease complications and encouraging them to adhere to self-care behaviors seem necessary.

G-1840

Investigating the acceptability of chatbots to promote healthy nutrition and physical activity among adolescents, a review study

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Introduction:: Reducing risky lifestyle behaviors among adolescents depends on access to age-appropriate health promotion information. Chatbots—computer programs designed to simulate conversations with human users—have the potential to provide adolescents with health information to improve lifestyle behaviors and support behavior change.

Method & material:: This review study was done by analyzing articles from databases including Pubmed, Scopus and Google Scholar and using keywords chatbot, artificial intelligence, adolescent nutrition, physical activity, health promotion and their Persian equivalents, without time limit. After the initial search, the articles were examined in terms of relevance to the study objectives and irrelevant articles were removed.

Result:: Worryingly, the prevalence of overweight and obesity among adolescents is increasing worldwide. Overweight and obesity in adolescence are associated with poorer health outcomes in adulthood, including cardiovascular disease and type 2 diabetes. Therefore, intervention early in life is necessary to prevent chronic disease. Digital health interventions, such as mobile apps, text messages, and gamification, hold promise for improving adolescent health by targeting physical activity and dietary behaviors. Nearly 70% of adolescents in high-income countries have smartphones, and mobile-based interventions are relatively inexpensive, accessible, and widely acceptable among adolescents.

Conclusion:: Limited research is available on chatbots in adolescent nutrition and physical activity interventions, and insufficient evidence is available on the acceptability and feasibility of chatbots in adolescent populations. Therefore, by designing a chatbot for teenagers it is possible to ensure that such technology is applicable and acceptable to a teenage population.

G-1841

Investigation of Risk Factors for Recurrent Falls in Iranian Elderly: A Cross-sectional Study

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Introduction:: Recurrent falls among the elderly population can have serious consequences, including Frequent falls are a major health concern for the elderly population and can lead to serious injuries and reduced quality of life. In this cross-sectional study, we aimed to identify the risk factors associated with frequent falls among elderly in Iran.

Method & material:: We recruited 160 elderly individuals with a history of falling and collected data using a questionnaire that consisted of three sections: demographic information and falling characteristics, the Activities-Specific Balance Confidence Questionnaire, and the International Short-Form Scale of Efficiency in Falling. Descriptive and analytical statistics, including univariate and multiple logistic regression, were used to analyze the data.

Result:: The most common diseases among the participants were hypertension (35%), heart disease (26.3%), and diabetes (26%). Based on the results of the multiple logistic regression analysis, hearing loss (OR=2.36, 95% CI: 5.1-04.38), overweight (OR=1.04, 95% CI: 08.00-1.95%), and fear of falling (OR=1.13, 95% CI: 1.27-1.27) were identified as predictors of recurrent falls.

Conclusion:: This study identified hearing loss, fear of falling, and weight as risk factors for recurrent falls among Iranian elderly individuals. Regular screenings for hearing loss and weight loss in the elderly may be helpful in reducing the risk of recurrent falls and improving healthcare.

G-1844

Examining the Needs of Family Caregivers of Stroke Patients: a Cross Sectional Study

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Introduction:: Stroke is known as the third cause of mortality and disability worldwide. The high complications of stroke lead to chronic disability in up to 50% of survivors. The vast majority of individuals who have suffered stroke are cared by their family members, who mostly find themselves unprepared for the task of providing care. This study aims to investigate the needs of family caregivers of the stroke patients.

Method & material:: This cross-sectional descriptive-analytical study was conducted on 112 family caregivers of the stroke patients. Sampling was done by convenience method and in rehabilitation centers from March to December 2022. Information was collected using two demography questionnaires and the Family Need Questionnaire (FNQ). Data were analyzed using descriptive statistics and independent t-tests and analysis of variance.

Result:: The major needs of caregivers were related to the dimensions of health information and professional support, respectively, and the least met needs were related to the dimensions of involvement in care and instrumental support, respectively. Among the demographic information, the gender of the caregiver and the level of dependence of the patient on the caregiver had a significant relationship with perceived needs and fulfilled needs.

Conclusion:: Perceived needs of the caregivers were high in health information dimension and in the involvement in care and instrumental support dimensions was less fulfill. Therefore, it is necessary to plan to train the family caregivers of the stroke patients and pay attention to all dimensions of needs, the degree of dependence of the patient on the caregiver and the gender of the caregiver.

G-1845

A study of the history of food intake in the occurrence of complications due to the vaccination of Covid-19: a case-control study.

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Introduction:: Complications and deaths caused by COVID-19 infection can be reduced with effective vaccination. However, there are limited human studies investigating the relationship between the history of food intake before vaccination and the severity of symptoms after vaccination. Therefore, this study aimed to investigate the history of food intake in two groups of people: those with complications and those without complications caused by vaccination against COVID-19.

Method & material:: A total of 586 participants including 377 cases (with moderate to severe symptoms after vaccination with covid-19 vaccine) and 209 controls (without clinical symptoms after vaccination) were examined in this study. In order to check the intake of food groups and eating habits during the last year, the food frequency questionnaire was used. Logistic regression models were used to estimate the strength of the association between history of food intake and odds of occurrence (ORs) of adverse events after vaccination.

Result:: In the group with moderate and severe complications after vaccination, most of the participants had a higher average consumption of dairy products compared to the control group (P = 0.049). After considering the total energy intake, gender, type of vaccine and body mass index in logistic regression models, dairy consumption had a significant relationship with the occurrence of complications after vaccination. Consumption of yogurt and cheese during one year before vaccination significantly increased the chance of symptoms after vaccination (OR = 4.15, CI = 7.90 - 2.18, P = 0.04) and (1.55) OR = 2.40 - CI = 1.07, P 0.001).

Conclusion:: It seems that the consumption of dairy products can increase the possibility of complications after the vaccination of Covid-19. It is recommended to conduct more studies in this field.

G-1847

Evaluation of the Appropriate Size of Follicles on Double Intrauterine Insemination in Controlled Ovarian Hyperstimulation Cycles

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Introduction: One of the methods of infertility treatment is controlled ovarian hyperstimulation and intrauterine insemination (COH-IUI). In order to increase the pregnancy rate, the time of inseminations, as well as the size of the follicle, and the number of inseminations per cycle, are very important. The important issue in IUI is choosing the best time to perform this procedure. Previous research has shown that the size of the follicles can have an effect on fertility outcomes in the IUI method. The aim of this study was to compare a double periovulatory intrauterine insemination (IUI), performed in different follicle sizes in patients undergoing controlled ovarian hyperstimulation (COH), in terms of the rate of chemical and clinical pregnancy in patients.

Method & material: In this cross-sectional study 20 women referred to Umm Al-Banin Infertility Center in Ganjavian Hospital, Dezful were included. Patients with male, female and unexplained infertility who were undergoing 40 cycles of COH with IUI. Patients were given 5 mg of letrozole daily from 3-7 days of the menstrual cycle, followed by 75 units of human gonadotropin menotropins on the 8-9 days. On the tenth day of menstruation, transvaginal ultrasound was performed to monitor ovarian response. On the tenth day of menstruation, transvaginal ultrasound was performed to monitor ovarian response. Then patients were divided into two groups based on the size of the dominant follicle. The first group with a dominant follicle size in the range of 17-19 and the second group with a dominant follicle size in the range of 20-22 mm. Both groups undergo IUI at intervals of 24 hours and then 48 hours after receiving the HCG.

Result: The average age of treated women was 24.5 ± 4.5 years with an average body mass index of 30.2 kg/m2. More than 70% of patients had undergone IUI only one or two times and only 5% had undergone IUI treatment more than 5 times, and the follicles had reached the desired size on average in 10.7 days after stimulation. There were no significant differences between the follicular size in terms of chemical and clinical pregnancy rates in both groups (P0.05). However Chemical and clinical pregnancy rate per cycle of 19.3 % and 15.6% respectively in the first group; and 18.1 % and 16.3% in the second group.

Conclusion: Among patients undergoing COH-IUI, results of double IUI with variable follicle size do not statistically differ. On the one hand, this study, by performing two IUIs at a specific time interval and grouping the dominant follicle of patients based on specific sizes, may be able to provide a more accurate protocol that gives the patient a greater chance of fertility.

G-1849

Evaluation of Anxiety Symptoms and Sleep Quality among Patients Undergoing Coronary Angiography

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Introduction: Patients with cardiovascular disorders generally suffer from poor sleep quality and anxiety. Coronary angiography (CAG) is an invasive procedure for the treatment of cardiovascular disorders that may lead to various clinical consequences affecting the patient's anxiety and sleep quality. The present study aimed to determine the relationship between sleep quality, anxiety symptoms, and its related factors in patients undergoing CAG.

Method & material: This cross sectional study included 218 patients undergoing CAG in Shahroud, northeast of Iran in 2023. Data collection tools included the demographic profile form, generalized anxiety disorder (GAD-7) questionnaires, and the Saint Mary's Hospital Sleep Quality Questionnaire (SMHSQ). The participants selected by convenience sampling were evaluated in the morning before their angiography operations. The inclusion criteria were being diagnosed with coronary diseases by the cardiologist's examinations and the patient's paraclinical tests, being 18 years old, and having the ability to read, write, hear, and speak. The exclusion criteria were experiencing severe sleep-distorting pains, undergoing emergency angiographies, using sedative medications one hour before the operation, using alcohol and caffeine, smoking, having a bleeding disorder history, suffering from severe psychological disorders upon the detection of psychiatrists, and consumption of neuroleptic drugs.The data were collected through self-reporting using questionnaires and then analyzed using descriptive and inferential statistics (multivariate linear regression analysis).

Result: The average age of the patients was 60.76 ± 10.55. According to the findings of the current study, 34.4, 49.5, and 16.1% of patients had mild, moderate, or severe sleep disorders, respectively. Almost half of the subjects (52.3%) had severe anxiety symptoms. Sleep disorder had a significant and direct relationship with the level of anxiety symptoms (β=0.239, p0.001). Also, variables such as younger age (β=-0.063, p=0.026), female gender (β=2.046, p=0.001), lack of secondary support (β=-1.983, p=0.029), and lack of health insurance coverage (β=4.335, p0.001) were recognized as factors of higher anxiety.

Conclusion:: The high prevalence of sleep disorders and anxiety symptoms in patients before CAG negatively impacts their clinical prognosis; therefore, it is recommended that necessary measures be taken to improve sleep hygiene and reduce psychological distress with the cooperation of a multidisciplinary team of health experts.

G-1850

Key Barriers to the Equitable Access to Maternal Health Services in Low-and Lower-Middle-Income Countries; A Scoping Review

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Introduction: The protection and improvement of maternal health (MH) are among the most important global health objectives. Despite the considerable emphasis on MH, there are still serious challenges in equitable access to MH services in many countries. This review aimed to determine key barriers to the provision and utilization of MH services in low-and lower-middle-income countries (LLMICs).

Method & material: In this scoping review, we conducted a comprehensive search on four online databases from January 2000 to September 2022. In this study, the approach proposed by Arksey and O'Malley was used to perform the review. Consequently, 117 studies were selected for final analysis. To synthesize and analyze the extracted data we used qualitative content analysis method.

Result: The main challenges in the utilization of MH services in LLMICs are explained under four main themes including, knowledge barriers, barriers related to beliefs, attitudes and preferences, access barriers, and barriers related to family structure and power. Furthermore, the main barriers to the provision of MH services in these countries have been categorized into three main themes including, resource, equipment, and capital constraints, human resource barriers, and process defects in the provision of services.

Conclusion: The evidence from this study suggests that many of the barriers to the provision and utilization of MH services in LLMICs are interrelated. Therefore, in the first step, it is necessary to prioritize these factors by determining their relative importance according to the specific conditions of each country. Consequently, comprehensive policies should be developed using system modeling approaches.

G-1854

Novel Ultrasound Drug Delivery System Using Dextran Stabilized Nanodroplets for Cancer Therapy

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Introduction: This study aimed to synthesize and characterize the Dox-loaded perfluorohexane nanomicelles using ultrasound irradiation in vitro. The effect of processing parameters such as homogenization speed, polymer dextran-concentration and surfactant concentration variables on particle size, entrapment efficiency, and drug release kinetics of DOX-loaded dextran stabilized perfluorohexane NDs were also investigated.

Method & material: Sodium Dextran, perfluorohexane, Lecithin soya, Phosphate buffered saline (PBS), and Dox Hydrochloride were prepared and used. Dox-loaded nanomicelles were synthesized by nano-emulsion process . UV–vis spectroscopy was used for investigation of drug release and entrapment. polydispersity index and size distribution were characterized by dynamic light scattering. In order to optimize the nanoparticles formulation regarding the entrapment, release kinetic and drug size, the process variables of homogenization speed, amount of surfactant, polymer and drug were calculated.

Result: The obtained results showed that the particle size and encapsulation efficiency significantly increased by increasing polymer concentration. In addition, by increasing the homogenization speed, the particle size was increased while entrapment efficiency was decreased.

Conclusion: The multifunctional dextran stabilized nanodroplets were synthesized. According to the results, the main characteristics of nanodroplets such as particle size, entrapment efficiency, and in vitro drug release kinetics, would change by the process and formulation variables; thus the desired characteristics could be obtained by altering these variables. Additionally, inclusion of a co-surfactant can lead to smaller NDs and control of DOX release kinetics. Finally, it was found that the formulation of C3 sample with 47.2 nm diameter size and 80% entrapment efficiency, showed the best properties. Cytotoxicity results also showed that 28 kHz frequency of ultrasonic lead to more biocompatibility of DOX-loaded nanodroplets.

G-1863

Anticipating esteem of cardiac troponin I in mortality of patients with novel corona virus

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Introduction: The clinical importance of measuring cardiac troponin I (CTNI) in hospitalized patients for coronavirus malady 2019 (Covid-19) is vague. In this consideration, we examined the prediction of CTNI within the mortality of patients diagnosed with novel corona virus (Covid-19).

Method & material: All patients with an unequivocal determination of covid-19 alluded to Imam Reza healing center of Tabriz emergency room during the primary 9 months of 2020 (4096 people) were included within consideration. The authoritative determination of covid19 was based on the results of the patient's complaint, hematological, and biochemical tests, and PCR and chest CT.

Result: In examining the result of the patients, it appeared that 23.7% of the patients died. The normal hospitalization period of patients was 6.7 ± 4.4 days. Examination of troponin level appeared that 96.3% had negative and 3.7% had positive CTNI. Based on the chi-square test, there was a noteworthy relationship between serum troponin level and requirement for mechanical ventilation as an additional result of patients with covid (P0.001). There was no noteworthy relationship between serum troponin level and sexual orientation with pneumonic inclusion in patients with covid (P0.05). The mean age of patients with covid 19 with pneumonic inclusion (60.4 ± 16.6 years) was higher than patients without pneumonic inclusion (54.6 ± 17.8 years) (P0.05). Subsequently, pneumonic inclusion was more observed in older patients. Based on measurable tests, the age of patients with positive CTNI (69.9 ± 11.8 years) was higher than negative CTNI patients (59.9 ± 16.8 years) (P0.05).

Conclusion: The outcomes of our considerations showed that CTNI may be valuable for distinguishing patients who are in a higher chance of mortality.

G-1864

Hypomethylating agents in cancer treatment and its epigenetic therapeutic applications in acute myeloid leukemia and myelodysplastic syndromes

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Introduction: Acute myeloid leukemia (AML), a potentially fatal blood malignancy, is the most prevalent form of adult myeloid leukemia and is characterized by an overgrowth of immature myeloid cells. Another myeloid condition known as myelodysplastic syndrome (MDS) is defined by malfunction of the myeloid-erythroid-megakaryocyte lineage, which increases the likelihood of progression to AML. The development and progression of tumors are largely governed by cumulative epigenetic alterations and dysregulated DNA methylation. Targeting DNA methylation with hypomethylating agents (HMAs) has emerged as a prospective therapeutic target in myeloid malignancies. In contrast to genetic alterations, epigenetic alterations are potentially reversible through pharmacological inhibition of DNA methylation, which is a potential target for therapeutic intervention and is the subject of this review.

Method & material: For the forthcoming systematic review, the required data were collected using the keywords and MeSH (Medical Subject Heading) terms listed below, where possible, and by reference to leading data databases such as PubMed, ScienceDirect and ProQuest. Additionally, a manual search using Google Scholar was performed to increase search sensitivity. The statistical study population includes all studies conducted from January 2018 to April 2023 in a relevant context. After reviewing the relevant results and evaluating the data quality, 16 English-language articles were analyzed.

Result: In neoplastic cells, dysfunctional DNA methyltransferases (DNMTs) leading to global hypomethylation of DNA with local hypermethylation of the CpG island. Consequently, defective DNA methylation on CpG islands in promoter regions leads to silencing of crucial tumor suppressor genes involved in cancer-related signaling pathways such as invasion, DNA repair and cell cycle regulation. The small-molecule drugs azacitidine (AZA) and decitabine, cytidine analogs, because of their ability to permanently inhibit DNMTs when integrated into nucleic acids and inducing DNA hypomethylation, are called HMAs. DNA demethylation in response to HMAs is depending on dosage schedules and results in two distinct properties: high doses promote cytotoxicity, while low doses produce DNA hypomethylation effects. HMAs can restore tumor suppressive operation in cells and reverse immune escape mechanisms mediated by epigenetic dysregulation. Additionally, HMAs are the standard of care for AML/MDS patients who are not candidates for intensive chemotherapy or hematopoietic stem cell transplantation.

Conclusion: Depending on the dosage schedules, hypomethylation therapy can act like a double-edged sword. Although the main obstacle to the development of HMA therapies is primary or secondary resistance, several recent studies suggest that drug therapies combined with an HMA framework such as the BCL-2 inhibitor venetoclax show promise in overcoming treatment resistance in AML/MDS patients. In AML/MDS patients, the use of HMAs as first-line therapy is well-established; nonetheless, unambiguous prognostic and response-predictive biomarkers urgently need to be found. Designing novel therapeutics to improve the efficacy of current treatments can be done by creating a new combination therapy employing HMA scaffolds.

G-1865

Protective effect of aqueous extract of Rhus coriaria on biomarkers and histopathology of liver and kidney tissue and oxidative stress indices on doxorbicin–induced toxicity in male rats

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Introduction: Doxorubicin (Dox) is an antibiotic with a wide range of antitumor and anti-cancer (anti-neoplastic) function and is widely used in the treatment of cancer. Several mechanisms have been reported for the side effects of doxorubicin on cardiac and hepatotoxicity, including free radical scavenging, mitochondrial damage, and cytotoxicity. The aim of this study was to determine the protective effects of Sumac aqueous extract on doxorbicin-induced renal, hepatic and cardiac function in rats.

Method & material: Doxorubicin (Dox) is an antibiotic with a wide range of antitumor and anti-cancer (anti-neoplastic) function and is widely used in the treatment of cancer. Several mechanisms have been reported for the side effects of doxorubicin on cardiac and hepatotoxicity, including free radical scavenging, mitochondrial damage, and cytotoxicity. The aim of this study was to determine the protective effects of Sumac aqueous extract on doxorbicin-induced renal, hepatic and cardiac function in rats.

Result: The results showed that pretreatment with sumac significantly protected the toxic effects of doxorubicin (Dox) by reducing the high level of biomarkers and diagnostic enzymes such as LDH, CPK, AST, ALT to normal levels (P 0.05). Serum ALP levels in doxorbicin group decreased significantly but pretreatment with sumac extract could not bring this marker to normal. The results of renal functional markers (urea, creatinine, uric acid) also showed a significant increase in the doxorbicin group compared to the control group, followed by a dose-dependent decrease in the pretreatment groups with sumac. The results of DPPH MDA, FRAP, THIOL were also effective and significant (P 0.05). Histopathological changes of liver and kidney tissues were also examined on a large scale, which showed that the tissue lesions caused by doxorubicin were significantly improved by sumac.

Conclusion: Pre-treatment with sumac for 30 days was able to prevent the occurrence of doxorubicin-induced toxicity and possibly due to its antioxidant properties, caused heart, liver and kidney protection.

G-1866

The outcomes of stereotactic radiosurgery for recurrent vestibular schwannoma after failed microsurgery, a systematic review and meta-analysis

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Introduction: Vestibular schwannoma (VS), also known as acoustic neuroma, is a benign tumor that originates from the vestibular nerve sheath. It is estimated that about one in every two thousand adults has a vestibular schwannoma. The goal of this study was to assess long-term outcomes in patients with vestibular schwannoma (VS) who underwent stereotactic radiosurgery (SRS) after initial failed microsurgical resection.
Method & material: The Medline/PubMed and Google Scholar databases were queried according to PRISMA guidelines. Articles were excluded if they were non-English, were pre-clinical studies and congress abstracts, editorials, letters, comments, news, or secondary research articles (e.g., reviews, meta-analyses), Cases involving neurofibromatosis type 2 and patients with malignant transformation of VS, used pre-MS SRS, treated patients with adjuvant SRS, or did not report any of the outcomes sought for this study. Proportions of outcomes and 95% confidence intervals were calculated using R Studio version 4.1.2. Heterogeneity was tested with I2. Significance threshold was p0.05.
Result: Thirteen studies containing 897 patients who underwent radiosurgery for tumor progression following gross or subtotal resection. The intended surgical approaches varied, including retro-sigmoid, trans-labyrinthine, retro-mastoid, suboccipital, and middle-cranial fossa. Facial nerve function improved in 17.94% of patients, while 8.02% experienced worsened facial weakness.
Pre-SRS hearing dysfunction deteriorated to a non-serviceable level in 23.9% of patients, and 6.34% developed new or worsened trigeminal nerve symptoms. Disequilibrium improved in 25.66% of patients, but 9.04% reported new or worsened balance problems. Tinnitus and vertigo improved in 23.77% and 27.90% of patients, respectively. Radiological tumor control was achieved in 86.93% of cases, with volumetric reduction recorded in 55.58% of patients.
Conclusion: The overall results suggest that salvage SRS is a valuable option for managing recurrent or residual VS after failed microsurgery, especially for patients who are not candidates for repeat surgery or who prefer a non-invasive approach.

G-1867

Disruption of the gastrointestinal microbiome in coronavirus infection: the underappreciated role of the gut–lung axis in COVID–19

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Introduction: The gut microbiome in COVID-19 has garnered a lot of attention since the coronavirus disease 2019 (COVID-19) pandemic outbreak because the gastrointestinal tract is the largest immune organ in humans and plays crucial roles through trillions of microorganisms known as the microbiome in preventing infections from pathogens. Since COVID-19 is mainly a lung disease, it has been demonstrated that respiratory infections are linked to both compositional and functional changes in the gut microbiota through the gut-lung axis , which is the crucial interplay between the pulmonary system and gut microbes. This review's focus is on the function of the gut-lung axis and recently identified pathogenic pathways in COVID-19.

Method & material: The necessary information was gathered for the forthcoming systematic review utilizing the MeSH (Medical Subject Heading) phrases given below, whenever possible, as well as by consulting authoritative information databases including PubMed, ScienceDirect, and ProQuest. To improve search sensitivity, a manual search was carried out on Google Scholar. All research that has been carried out in a pertinent context as of March 2023 is included in the statistical study population. 18 English-language publications were studied after looking over the pertinent results and assessing the data quality.

Result: Even when the disease has resolved, the gut bacterial microbiome in COVID-19 exhibits persistent dysbiosis and has diminished diversity and richness. Increasing data points to cytokines from an infected respiratory tract, a direct infection of the gut, or even both as the source of the modification in the gut microbiome. Alternatively, the SARS-CoV-2 may be infecting the enterocytes from the colon and ileum, which may result in gut dysbiosis and a leaky gut , which would allow the transfer of bacterial metabolites and toxins into the systemic circulation and intensify the systemic inflammatory response. These gastrointestinal changes in COVID-19 may be a secondary effect of the major pulmonary changes. SARS-CoV-2 may be able to access enterocyte surfaces more easily if the gut barrier is compromised, which would exacerbate COVID-19's condition. Furthermore, the gut microbiota of elderly people is typically less focused. The tendency of COVID-19 to be more severe in the

Conclusion: The severity of COVID-19 was higher in patients with decreased post-convalescence bacterial microbiome richness, pointing to a link between gut dysbiosis and COVID-19's hyper-inflammatory response. These findings support the idea that COVID-19 treatment may involve a novel strategy for modulating the gut microbiota using probiotics. To completely comprehend the significance of the gut microbiome in host protection against SARS-CoV-2 infection after the epidemic, more research will be required.

G-1868

Gluten–Free Diet, the impact on Autism severity and Gastrointestinal Symptoms in Children

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Introduction: Autism spectrum disorder (ASD) may be a kind of neurodevelopmental illness characterized by troubles in social intuitive, verbal, and nonverbal communication, movement restrictions, moreover repetitive movement designs. The aim of this ponder is to explore the impact of a Gluten-Free Diet (GFD) on the gastrointestinal (GI) and neurological symptoms of patients with autism.

Method & material: In this clinical trial, 120 patients diagnosed with autism from Tabriz Children's Healing center and Sheikh Al-Raeis Clinic were included. Neurologists and psychologists affirmed the diagnosis of autism utilizing the M-CHAT-R/F survey. According to the clinical history of the patients and the Rome 3 criteria, GI side effects such as diarrhea, constipation, spewing, and stomach inconvenience were identified. A GFD was prompted, and the parents have been taught nourishment education and ongoing autism treatments. As the control group, the children who had gotten uncommon medicines for autism and kept up a standard diet were followed up.

Result: The average age of the patients was 9.27 ± 3.25 years. Fifty-two patients (47.3%) were male and fifty-eight patients (52.7%) were female. The seriousness of ASD based on the M-CHAT-R/F scale was significantly diminished after 12 months within the patients of the intervention group. Also, significant enhancement within the regions of speech, cognition, and behavior has been seen after employing a GFD for the patients of the intervention group. Moreover, GI side effects counting sickness and vomiting, constipation, abdominal tenderness, and inconvenience, were essentially diminished within the mediation group. In any case, the GI side effects within the control group didn't appear any factually significant distinction compared to the 12th month.

Conclusion: Concurring to the outcomes of the current study, the administration of GFD in children with ASD can altogether lead to the enhancement of GI clutters and neurological side effects with respect to the seriousness of autism in speech, cognition, and behavior.

G-1869

The use of telenursing in the elderly with Alzheimer disease: a systematic review

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Introduction: Alzheimer's is one of the neurogenerative diseases that causes gradual deterioration of cognitive function and memory. Since about 90% of Alzheimer's patients are cared for at home, remote nursing methods can be used to increase the quality and effectiveness of health care delivery and reduce caregiver burden. The purpose of this study is to review the use of telenursing on the cognitive and psychological performance of the elderly with Alzheimer's disease.

Method & material: This study was conducted in 2023 as a systematic review. Keywords Alzheimer's, telenursing and elderly were searched in Pubmed, SID, Scopus, Science direct, Magiran, Sid, Irandoc and Google Scholar search engine without time limit. After applying the inclusion and exclusion criteria, finally 21 articles were included in the study.

Result: The conducted studies show that telenursing is a suitable tool for improving the care of the elderly with Alzheimer's disease. Telephone telenursing follow-up is effective in improving the lifestyle and improving the health and self-management behaviors of Alzheimer's patients and helps the patient and his family to actively participate in the care of the patient at home. Studies point to the positive effects of remote nursing in terms of improving patients' quality of life, reducing patients' depression and anxiety, and it can also be effective in reducing maintenance costs, improving cognitive processes, and reducing the care burden of these patients. However, for the optimal use of this solution, it is necessary to examine the appropriate techniques to improve physical and social activities; For example, it is possible to identify, classify and examine the treatment process of these patients by analyzing the walking pattern using sensors based on information technology.

Conclusion: Remote nursing is very effective and helpful in the fields of care, education, support, follow-up and counseling of Alzheimer's patients and can be used as a useful, low-cost and accessible tool to provide services to these patients.

G-1870

Evaluation of the effect of IGF-1 level and growth hormone stimulatory test with height changes in the first year of growth hormone administration in 2-14 years old children from 2021 to 2022

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Introduction: The main goal of treatment with growth hormone is to increase and, if possible, to normalize the speed of height growth and reach appropriate height until adulthood. However, in previous studies, it has not been determined that the response rate of patients following the administration of growth hormone as an increase in height depends on what factors, and the relationship between the level of IGF-1 and the results of growth hormone stimulation tests and this response of patients to the administration of growth hormone. The definitive form has not been determined. The present study was conducted with the aim of determining the relationship between IGF-1 level and growth hormone stimulation test with height increase in the first year of growth hormone administration in children aged 2-14 years from 1400 to 1401.

Method & material: Our study population included patients with short stature who were referred to Kausar Ardabil clinic who received recombinant growth hormone. The information required for each patient includes gender, chronological and bone age, initial height and height one year later, weight, birth weight, father's height, mother's height, IGF-1 level before and after treatment, growth hormone indication and total growth hormone dose was included in a check list.

Result: 145 children referred to pediatric endocrinology clinic were included in the study. 85 cases (58.6%) were girls and 60 cases (41.4%) were boys. The average chronological age of the participants was 9.19±3.05 years and their average bone age was 8.66±3.02 years. The average initial height of the participants was 124.65±18.64cm and the average height one year later was 133.78±17.22cm. The weight of the participants was 29.09 ± 11.60kg. All patients underwent growth hormone stimulation test, which was reported positive in 78 cases (53.8%). In terms of indications for growth hormone administration,15 people (10.3%) had low PAH, 79(54.5%) GHD, 27(18.6%) ISS, 20(13.8%) GSS and 4(2.8%) had Turner syndrome. The average birth weight of the patients was 2.98±0.52kg. Also, the average height of the father was 167.97±9.37cm, the average height of the mother was 157.61±6.84, and the average height of the patients' parents was 162.79±6.54.

Conclusion: There was no significant difference in height growth rate of patients in the studied children based on gender(p=0.323), age range(p=0.092) and indication of hormone administration(p=0.766). correlation of height growth rate with the studied variables shows a significant correlation with mother's height (r=0.178 and P0.05), average height of parents (r=0.164 and P0.05), and chronological age (r=0.235 and P0.01). IGF-1 changes in patients with different indications for growth hormone administration weren't significantly different.

G-1871

Investigation of association between dietary fat intake and risk of liver cancer: a systematic review

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Introduction: Studies have shown that components of the diet, including the type of fat intake, play a role in the occurrence of liver cancer. Given the conflicting results of various studies, the aim of this study is to review the literature on the relationship between dietary fat intake and the risk of liver cancer.

Method & material: This study was a review conducted by searching databases such as PubMed, Scopus, Web of Science, and Google Scholar using keywords : dietary fat intake, unsaturated fat, monounsaturated fat, polyunsaturated fat, omega-6, omega-3, saturated fat, plant fat, animal fat, hepatocellular carcinoma, liver neoplasms, hepatic carcinoma, and liver cancer. Published studies between 2007 and 2022 were reviewed. Studies conducted on humans and articles written in languages other than English were excluded.

Result: A total of 2438 articles were found, and among them, 10 observational studies were included in the review to assess the relationship between the intake of saturated fatty acids, monounsaturated fatty acids, polyunsaturated fatty acids, omega-3, and omega-6, and the risk of liver cancer. Three studies showed an inverse relationship between omega-3 fatty acid intake, and two studies showed a positive association between saturated fatty acid intake and the risk of liver cancer.

Conclusion: Due to the limited number of studies with significant results, it is not possible to provide a definitive conclusion. However, it can be suggested that increased intake of omega-3 fatty acids (such as fish) and decreased intake of saturated fats may be effective in reducing the risk of liver cancer. Further future studies are suggested for a more prospective outlook.

G-1872

The role of HPV vaccine in the prevention of HPV_related cancers, review article

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Introduction: HPV is the most common sexually transmitted virus. It is divide to two categories low risk and high risk. The HPV virus known as main factor of Anogenital and Cervix cancer and Genital wart. This present study it was done with aim of investigation of role HPV vaccine in prevention of HPV related cancers.
Method & material: in this review study was perused more than 50 articles between 2010 and 2022 through searching in database such as Web of Science, PubMed, Scopus, Science direct and Google by entering key words HPV, papilloma vaccine, Cervix cancer, Anogenital Cancer as a result 29 articles was select.
Result: The known vaccines until now is include Cevarix, Gardasil 4, Gardasil9, all of that contain type of 16 and 18 that is the most common and dangerous. And also this vaccines have acceptable prevention against this virus but don't have therapeutic properties against this virus and related cancers. These vaccines protect in contrast 70% of cervix cancer, 90% of genital wart. Also 79% of prevention to wastes of, Mouth, Pharynx, Anal premalignant. Thus, HPV vaccination can prevent of mention items related to papilloma virus.
Conclusion: the effective role of HPV vaccinate related to mention cancers that studies prove. this study emphasizes the necessity of conductive more training sessions and intervention through the Ministry of Health, that can improve the society health at community level. It's recommended to do vaccination and increase awareness against the virus and its dangers.

G-1873

The relationship between dairy consumption and risk of hepatocellular carcinoma: An Updated Systematic Review of observational studies

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Introduction: Liver cancer is the sixth most common cancer and it ranks third in terms of cancer death. Evidence shows that almost 30-40% of cancer cases could be prevented by modifying nutritional factors and dietary patterns. Milk and dairy products are rich protein sources with high biological value, which contains essential micronutrients and several bioactive compounds that may affect the risk and progression of cancer. Although, the relationship between dairy consumption and the risk of hepatocellular cancer is so controversial, therefore the purpose of this study was to summarize the relationship between dairy consumption and risk of liver cancer.

Method & material: In this study, we searched for all articles related to the mentioned topic by using relevant keywords in PubMed, Google scholar, Scopus, and ISI Web of Science until 2023. No restrictions in the time of publication and language of articles were considered. We included observational studies investigating the associations of dairy products with hepatocellular carcinoma in adults. We assess the quality of included studies by Newcastle Ottawa scale.

Result: In total, we included 16 observational studies including 8 prospective and 8 case-control studies that included 500,000 adult participants. Out of 16 articles which were found, 11 studies reported a direct and significant association between dairy consumption and risk of liver cancer. However, 3 studies declared that higher yogurt consumption was associated with lower risk of developing hepatocellular carcinoma. The possible mechanism for this positive association could be due to an increased IGF-1 plasma levels, which is an important factor in regulating cell proliferation, differentiation and apoptosis. In addition, most studies reported a significant positive association between milk intake and risk of hepatocellular carcinoma. Data for other types of dairy products were not sufficient.

Conclusion: Most studies included in the current systematic review showed that higher consumption of dairy products is associated with increased risk of hepatocellular carcinoma. However, a meta-analysis is needed to confirm these findings.

G-1874

Mature teratoma of conus medullaris: A case report and review of literature

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Introduction: Teratomas are generally referred to as types of germ cell tumors derived from all three germ layers. While these tumors may manifest in various regions, teratomas constitute less than 1% of the central nervous system (CNS) tumors and are extremely rare in the spinal cord.

Method & material: A systematic search of Pubmed/Medline and Embase databases was conducted on published case reports and case series of conus medullaris teratoma since the year 2000. Twenty-three studies reporting a total number of 63 patients diagnosed with teratoma of the conus medullaris were identified. Analyzing the characteristics of the patients reported in the literature demonstrated that the mean age of the patients was 37.1, of which 47.4% were female.

Result: A 40-year-old man with a lifelong history of urinary incontinence was admitted to a neurosurgery center in Southeast Iran due to worsening radicular (nerve root) pain. Over the past year, he had been suffering from severe lower back pain that radiated to both legs, which worsened with activity and improved at rest. He also developed left foot drop and exhibited sensory abnormalities in both lower limbs, saddle hypoesthesia (numbness in the area of the buttocks and genitals), and urinary incontinence. MRI revealed a large tumor pressing on his spinal cord at the T11-L1 level. He underwent surgery to remove the tumor, identified as a mature teratoma with various tissue types. After surgery, his pain improved significantly, and he did not experience new neurological problems, leading to his discharge in stable condition three days later.

Conclusion: In conclusion, although conus medullaris teratoma is a rare tumor, it can potentially affect patients of any age and cause progressive symptoms, thereby significantly impacting the quality of life of patients. These tumors typically present with a variety of neurological symptoms, including back pain, motor and sensory deficits, and sphincter dysfunction. While the prognosis for these tumors is generally good, there is a risk of symptom progression if proper intervention does not apply. Moreover, in the case of immature or malignant teratoma, there might be cases of recurrence or metastasis.

G-1876

Chemical composition, antioxidant activity, and general toxicity of aerial parts of Ecballium elaterium, an Iranian traditional herbal remedy

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Introduction: Ecballium elaterium belongs to the Cucurbitaceae family and is traditionally used in folk medicine to treat various diseases, including fever, liver cirrhosis, sinusitis, hypertension, rheumatic disease, and cancer. It is widely known for its anti-inflammatory and antioxidant effects. Previous studies focused on ethanolic extracts and fruit extracts of this plant. The present study aims to identify the most suitable solvent composition and fraction for extracting compounds from Ecballium elaterium and to determine the composition of its essential oil.

Method & material: The aerial parts of the plant were extracted using n-hexane, dichloromethane, and methanol solvents through a Soxhlet apparatus. The dried methanolic extract was purified using C18 Sep-Pak with a step gradient of MeOH-Water. Preparative reversed-phase HPLC was used to further purify the fractions, resulting in the isolation of three compounds. The structures of these compounds were elucidated using 1HNMR and 13CNMR methods. The essential oil was obtained by hydro-distillation using a Clevenger extractor, and its composition was determined using GC-MS. The free-radical scavenging activity, general toxicity, total phenol, and total flavonoid contents of the extracts and fractions were examined using DPPH radicals, Folin-ciocalteu, and AlCl3 reagents.

Result: The phytochemical study of the methanolic extract of Ecballium elaterium resulted in two flavonoids and one naphthalene structure, including Quercetin 3-o-glucoside (isoquercetin), 6,8-dihydroxy 3-o-glucosyl apigenin, and 8-hydroxy 1-o-glucosyl naphthalene, respectively. The study on the composition of the essential oil revealed 17 compounds, mainly composed of ketones and esters of fatty acids. The MeOH extract displayed strong antioxidant activity compared to the other extracts. Among the fractions, 40% exhibited the most potent antioxidant activity and high phenol and flavonoid contents. None of the extracts showed general toxicity in the brine shrimp lethality assay.

Conclusion: The presence of phenolic derivatives, particularly flavonoids, appeared significant as antioxidant compounds in methanolic extract and could be useful for inflammatory conditions, cancer prevention, and oxidative stresses. Isoquercetin, for instance, has been identified in several studies as an anti-inflammatory factor and therapeutic agent in cancer therapy, wound healing, and rheumatic disease.

G-1878

The Effectiveness and Safety of Telerehabilitation in patients With Total Knee Arthroplasty: A systematic Review of Randomized Clinical Trials

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Introduction: One of the most common joint conditions worldwide is knee osteoarthritis (KO), which can cause significant disability [1]. To improve the quality of life for patients with advanced KO, Total Knee Arthroplasty (TKA) is often used. In recent years, Rapid Recovery or Fast-Track strategies have been developed and applied in TKA and other selected surgeries. These strategies aim to enhance recovery after surgery, reducing morbidity, functional recovery time, and hospital stay length and costs [2, 3]. Key factors for a successful recovery after TKA include pre-operative rehabilitation, patient empowerment, and early postoperative rehabilitation once the patient is discharged [4, 5]. Telerehabilitation has become increasingly popular as a replacement or addition to traditional in-person physical therapy since its creation [6]. These systems use sensors and software to monitor patients, enabling therapists to remotely assist with their rehabilitation progress. Patients feel supported, motivated, and monitored [8], and the results are similar to those

Method & material: Our team conducted a review of clinical trials of telerehabilitation in patients who underwent total knee arthroplasty, following PRISMA 2020 guidelines. We searched PubMed, WOS, and Scopus databases for English full-text papers until May 26, 2023, using comprehensive electronic search strategies. We extracted basic information from studies that met our inclusion and exclusion criteria, noting the number of studies, study type, study subjects, intervention and control group measures, outcome indicators, quality assessment tools, and main conclusions.

Result: After removing duplicate articles from PubMed, Scopus, and Web of Science databases, we obtained 822 articles. Two screeners, A.R.A and R.R, individually reviewed these articles and selected 31 for full-text review. From these, we used 9 studies for data synthesis.The information on the reviewed articles in the data synthesis stage was placed in the appendix of the result.Two studies showed that digital health systems or smartphone software had similar results to traditional rehabilitation methods[10, 11]. However, in three other cases, these new systems significantly improved performance compared to traditional methods [12-14]. Two studies indicated that using traditional rehabilitation methods showed similar results with telemedicine methods [15, 16]. In one study, the telerehabilitation method was highly recommended [17].

Conclusion: Due to the heterogeneity of the data, a concrete and reliable statement is not possible. Heterogeneity of results was observed in some of studies. However, rehabilitation using electronic aids, especially smartphones, can be evaluated positively.

G-1879

A Nurse care coordinator role in colorectal cancer: a qualitative study

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Introduction: The role of a nurse as a care coordinator is to coordinate care between members of the interprofessional team in order to ensure quality, cost-effectiveness and optimal access to care. Therefore, the present study was conducted with the aim of investigating the roles of the of colorectal cancer nurse care coordinator in Iran.
Method & material: A qualitative study was carried out using a qualitative content analysis. The data were collected through in-depth semi-structured interviews with 21 members of the health team (7 nurses working in the oncology department, 3 health care nurses working in community health centers, 11 people in charge of health and treatment departments), 5 patients and 3 family members. They were purposively sampled and data were iteratively collected and analyzed from February to March 2021.
Result: The findings revealed one categories (nurse as a coordinator of colorectal cancer care) and three subcategoris 1. General competencies required with subsubcategories (familiarity with the principles of patient and family education, patient safety, infection control, nursing information technology , team work and interprofessional cooperation, nursing ethics, intercultural care, effective communication with the patient, research in nursing, performance based on the nursing process and policy-making in nursing), 2. Promotion of specialized information related to colorectal cancer disease with subsubcategories (familiarity with the mechanism of disease occurrence and prevalence, disease symptoms, treatment-related complications, types of treatment methods, types of disease diagnosis methods, design and implementation of psychological support programs for the patient and family, principles of palliative care and patient rehabilitation) and 3. executive duties with subsubcategories (introducing the patient upon admission, guiding the patient during hospitalization, preparing the patient for discharge, following up the patient after discharge, identifying and continuously evaluating
Conclusion: Considering the importance of the role of the coordinator of nurses' care in improving the health of patients, the policy makers of the health systems should consider this role, understand the importance and necessity of this role and play a role by removing the existing obstacles.

G-1880

Application of artificial intelligence and digital imaging in breast cancer

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Introduction: Breast cancer is one of the leading causes of death in women worldwide. The best way to treat the disease is to use screening methods. The use of artificial intelligence in breast screening and imaging has helped to identify and classify tumors and their therapeutic function and increased the success of treatment. The present study was conducted with the aim of using artificial intelligence and digital imaging on cancer.
Method & material: Information was collected by reviewing articles published in Google Scholar, PubMed, Web of Science, and Scopus databases without a time limit using the keywords breast cancer, mammography, artificial intelligence, and digital imaging . The inclusion criteria were articles on the use of artificial intelligence and digital imaging in breast cancer. The data extraction process was done by two researchers first in the title and abstract of the articles, and if appropriate, the full text of the articles was checking.
Result: Findings showed that by combining digital imaging and artificial intelligence, possibility of disease diagnosis based on radiological images has been improved. These methods are effective in evaluating breast cancer and identifying cancerous spots through radiological images. In the field of treatment, artificial intelligence is used for early detection and reducing the number of false positive cases using data obtained from radio mix and biopsy slides. In the breast cancer screening, mammography, artificial intelligence analyzes images and detects breast masses, segmentation of masses, breast density and cancer risk assessment. CAD computer assisted diagnosis systems are also able to detect micro calcifications. Correct segmentation using artificial intelligence improves treatment options. Breast density assessment is done using two-dimensional mammography, and breast cancer risk assessment based on the assessment of risk factors such as age, family history, production factors, estrogen, and lifestyle. Also, CAD in digital breast tomosynthesis imaging has reduced image reading time.
Conclusion: Cancer treatment using artificial intelligence is promising. Because artificial intelligence is based on data collected from populations and there is a difference in data collection for people with different social and cultural conditions, to make better use of data, usability software should be implemented in hospital software systems with a joint effort from the medical and engineering community. Sufficient training should be provided for doctors regarding the use of artificial intelligence technology.

G-1882

Impact of COVID-19 on Pregnancy and Vertical Transmission: A Systematic Review

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Introduction: The global COVID-19 pandemic has had a significant impact on public health and the global economy. It has also demonstrated potential effects on pregnancy outcomes, fetal development, and maternal-fetal transmission. The objective of this systematic review is to provide an overview of the considered outcomes during pregnancy and their transmission.

Method & material: This systematic review was conducted by checking the PubMed, Scopus, and Web of Science databases following PRISMA guidelines, using keywords such as SARS-CoV-2, coronavirus, COVID-19, Coronaviridae, fetus, pregnancy, mother-to-child, infant, maternal-fetal, virus transmission, mother-to-infant, vertical transmission, and disease transmission from December 1, 2019, to January 31, 2023. All articles in English, including observational studies (cohort studies, case-control studies, case series, and case reports), and laboratory studies focusing on the impact of COVID-19 on pregnancy, fetal growth, and infants were included. The title and abstract screening were performed by two independent screeners.

Result: In total, 18,990 articles were identified through the electronic search of the databases (8,923 from PubMed, 1,535 from Scopus, and 8,540 from Web of Science). After removing duplicates, 5,246 studies remained. Ultimately, 1,891 studies meeting the inclusion criteria were included. Among these, 337 studies were case reports and case series. The results indicated that although the rate of cesarean section delivery increased in mothers with COVID-19, the type of delivery had no significant effect on the risk of neonatal infection.

Conclusion: During the COVID-19 pandemic, maternal and neonatal mortality, stillbirths, and ectopic pregnancies increased. Overall, COVID-19 can be transmitted during pregnancy, but maternal-fetal transmission is rare. However, to further investigate these adverse effects, more data are needed for the follow-up of these patients, especially in cases of disease recurrence in mothers infected with COVID-19.

G-1883

Report of a rare case of Creutzfeldt–Jakob disease in Al–Zahra Hospital, Isfahan

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Introduction: Creutz-Jakob disease (CJD) belongs to a group of neurodegenerative and infectious disorders known as transmissible spongiform encephalitis (TES). CJD is very rare and has no identifiable cause, vCJD is caused by human consumption of prions found in contaminated beef. In this disease, prion crosses the blood-brain barrier, deposits in the brain tissue and causes brain tissue degeneration. After that, brain cells will be destroyed and spongy vacuoles will be produced inside the brain. In the next stage, amyloid plaques surround the sponge vacuoles. The incidence of this disease is one in every one million people. Although CJD is not typically transmitted through human-to-human contact, 5% of sporadic CJD cases have been caused by neurosurgical instruments, cadaver-derived growth factor, or corneal transplants.

Method & material: The present report is about a 65-year-old man who gradually suffered from insomnia and balance disorder while walking, forgetfulness, dysphagia, and inability to urinate since about a month ago, and then he developed urinary incontinence and speech disorder, which was accompanied by fever, and with the diagnosis o CJDRetosepsis has been referred to this center. The patient is unable to speak, numerous wounds were observed in the mouth. Force moves of the limbs are 1/5 and the limbs proportionally to the painful stimulation. It is under ventilator with SIMV mode. Recently, he has been engaged in animal husbandry and exactly one year ago he traveled and ate beef there and fell ill for 3 days and temporarily fainted. He had severe weakness along with loss of consciousness, so that during these 3 days he lost about 15 kg of weight.

Result: 2-3 months after this case, they were infected again, the symptoms appeared again. Since about 2 months ago, he has been getting angry and yelling, he has gradually become forgetful, he has developed muscle spasticity, he has not been able to walk well and he has been unable to stand on his feet, he has not been able to perform movements even He could not sit with the help of others, and he was not able to eat or speak. He has been hospitalized for about 20 days. Since a week before hospitalization, he did not know anyone, he has a phobia. Patient care is supportive and palliative. The goals of care include preventing injuries related to immobility and dementia, increasing the level of patient comfort and family education.

Conclusion: Emotional support for patients and families is essential during the disease. Prevention of disease transmission is an important part of nursing care. Although it is not necessary to isolate the patient, it is important to use standard precautions. Institutional protocols regarding contact with blood and body fluids and decontamination of equipment must be followed.

G-1884

Pregnancy and neonatal outcomes of intracytoplasmic sperm injection versus conventional in vitro fertilization in couples with advanced maternal age and non-male factor infertility in Yazd

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Introduction: The use of intracytoplasmic sperm injection (ICSI) has increased dramatically in recent years for couples with advanced maternal age (AMA) and non-male factor infertility. Although ICSI is being used in preference to standard in vitro fertilization (IVF), the efficacy of ICSI for couples without male factor infertility has never been conclusively confirmed. Moreover, evidence indicates that ICSI is associated with an increased risk of adverse neonatal outcomes. This study aimed to compare pregnancy and neonatal outcomes between ICSI and IVF cycles among couples with AMA and non-male factor infertility.

Method & material: This cross-sectional analytical study was conducted at the Reproductive Sciences Institute, Yazd, Iran. All couples with AMA (≥35 year) and non-male factor infertility undergoing IVF/ICSI with positive clinical pregnancy were reviewed from March 2019 to December 2022. Ultimately, demographic, and clinical data, including women's age, chemical and clinical pregnancy, single or multiple pregnancy, mode of delivery, live birth, miscarriage, gender, neonatal weight, perinatal morbidity, Neonatal Intensive Care Unit (NICU) admission, and neonatal abnormalities, were extracted and compared between fresh and thawed embryo transfer cycles within the ICSI and IVF subgroups. Data analysis was performed using SPSS V18 software (Statistical Package for the Social Sciences, SPSS, Chicago, IL, USA) with descriptive statistics (frequency, percentage, mean ± standard deviation) and analytical statistics (chi-square and Mann-Whitney test) with a significance level of less than 0.05 in two groups of fresh and thawed embryo transfer cycles, subdivided into ICSI and IVF.

Result: In this study, data from 659 infertile women with a mean age of 39.61 ± 4.72 years (range 35-55 years) were examined in two groups (n=213) fresh and (n=446) thawed embryo transfer cycles. The results indicated that the type of delivery was significantly different only among FET volunteers in women undergoing ICSI compared to IVF (p=0.024). In the fresh group, natural childbirth and NICU admission were significantly higher in the IVF group compared to the ICSI group (p=0.038 and p=0.013, respectively).

Conclusion: Our results demonstrate a significant difference in the type of delivery between IVF and ICSI methods in both fresh and thawed embryo transfer cycles. Additionally, ICSI may reduce the likelihood of NICU admission in comparison to IVF in fresh embryo transfer cycles for women over the age of 35 with non-male factor infertility.

G-1885

Association of adherence to the adjusted relative Mediterranean and MIND diet with chronic migraine in women: A cross-sectional study

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Introduction: Chronic migraine (CM) is a neurologic disorder characterized by 15 attacks or more per month and could be affected by diet, lifestyle, and environmental factors. The MIND diet is specifically designed to be neuroprotective and emphasizes natural plant-based foods known to have antioxidant and anti-inflammatory properties. Therefore, it can be expected that adhering to this diet is related to migraine management; However, studies in this area are very limited and inconclusive. The present study investigated the association of adherence to the MIND diet with the risk of CM in Iranian women.

Method & material: In this cross-sectional study, 285 female 25 to 55 years old patients with migraines referred to Golestan Hospital neurology clinics in Ahwaz, Iran were recruited from July 2017 to March 2018. The Ethics Committees of Ahvaz University of Medical Sciences reviewed and approved the study protocol. Migraine was diagnosed by a single neurologist based on the third edition of the International Classification of Headache Disorders (ICHD-III). Pregnant or lactating women and those with hormonal or thyroidal dysfunction, epilepsy, and asthma were excluded. The women were categorized into the CM group (≥15 attacks) and episodic migraine (EM) group (15 attacks) based on their attack frequency per month. Adherence to the MIND diet was assessed based on the last year's dietary intakes of 9 brain-healthy food groups (whole grains, green leafy vegetables, other vegetables, nuts, berries, beans, fish, poultry, and olive oil) and 5 unhealthy food groups (red meats, butter, and stick

Result: Most of the studied women were overweight (40.7%) or obese (33.3%) and reported no family history of migraine (59.3%). About 40.7% of participants experienced CM. Women with CM had significantly higher fat (P= 0.004) and lower fiber (P= 0.03) intakes than women with EM. The MIND score for the EM group was significantly higher than the CM group (15(5) against 13.56 ± 3.15, P=0.02). There was a significant negative association between CM and MIND score [(OR (95% CI) crude: 0.90 (0.85 – 0.97); P-value: 0.007) and (OR (95% CI) adjusted: 0.91 (0.85 – 0.98); P-value: 0.03)].

Conclusion: The women in the lowest tertile of the MIND scores had 9 percent higher chances to experience CM than women in the highest tertile of MIND scores.

G-1886

Understanding vaccine hesitancy among Healthcare Workers of Iran: Prevalence and associated factors

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Introduction: Given the crucial role of Healthcare Workers (HCWs) as an information source for medical decisions, investigating the prevalence of vaccine hesitancy among HCWs and the associated factors is necessary. With few studies conducted in Iran regarding this topic, we aimed to assess HCWs hesitancy towards receiving and recommending the COVID-19 vaccine during the time period that a vaccine was only accessible to the HCWs and high-priority patients.

Method & material: This cross-sectional study was conducted using an in-person questionnaire that was distributed in 5 of the major hospitals of Mashhad in July of 2021. Convenience sampling was used to include all healthcare workers (HCWs) such as physicians, nurses, pharmacists, and midwives. Our 3-part questionnaire included background information including history of vaccination, views towards vaccination and COVID-19 disease, and two sections with Likert scales on the likelihood of receiving and recommending the 5 vaccines available in Iran (the Sputnik, the AstraZeneca, the Sinopharm, the Covaxin and the COVIran Barekat). SPSS v22 was used for descriptive analysis and performing Chi-square test.

Result: A total of 298 HCWs responded to our questionnaire, most of whom were female (68.8%) and married (76.5%). Nurses and physicians made up the majority of HCWs studied (53.4% and 24.2% respectively). Nearly all respondents (97%) had been offered the vaccine, with a substantial majority (91.3%) having received it. The Vaccines with the highest approval rating for recommendation by the HCW were the Sputnik, the AstraZeneca and the Sinopharm (71.8%, 63.4% and 45.6% respectively). Only 7.0% of HCWs were hesitant towards receiving any of the 5 vaccines, and 10.4% of HCWs were hesitant towards recommending any of the 5 vaccines. Agreeing with the statement "It is preferable to acquire immunity against COVID-19 diseases naturally (by having the disease) than by vaccination" and disagreeing with "I trust science to develop safe effective new vaccines" and no history of vaccination against Influenza in the previous 5 years were significantly associated with hesitancy

Conclusion: Hesitancy towards all vaccines developed against COVID-19 is very low among the HCWs of Iran, both for receiving and for recommending the vaccine. Educating the HCWs regarding the efficacy of vaccines and assurance about the safety of vaccines could prove to be beneficial when implementing a national vaccination campaign.

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G-1887

Exosome therapy in controlling apoptosis in breast cancer

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Introduction: Breast cancer (BC) is one of the most common types of cancer in women. Despite advances in diagnosis and treatment, BC remains a significant cause of mortality among women. Apoptosis, a type of programmed cell death, plays an important role in the regulation of cell growth and survival, and dysfunction of apoptotic pathways has been implicated in the pathogenesis of BC. Long non-coding RNAs (lncRNAs) are a type of non-protein coding RNA molecule that have been shown to play a critical role in the regulation of cellular processes, including apoptosis. Recent studies have shown that exosomal lncRNAs play an essential role in the regulation of apoptosis in BC by modulating the expression of critical apoptotic proteins. In this article, we will review the current literature on the role of exosomal lncRNAs in the regulation of apoptosis in BC and their potential as therapeutic targets for the treatment of BC.

Method & material: A comprehensive search of the Scopus and PubMed databases was conducted between 2012 and 2023. The search strategy includes keywords related to apoptosis , breast cancer" and exosome therapy . Non-English articles, conference abstracts and animal model studies were omitted from the analysis.

Result: Several studies have shown that exosomal lncRNAs can play a key role in regulating apoptosis in BC. For example, a study published in the journal Cancer Letters showed that exosomal lncRNA GAS5 can promote apoptosis in breast cancer cells by interacting with the anti-apoptotic protein Bcl-2 and promoting its degradation. Another study published in the journal Oncotarget showed that exosomal lncRNA H19 can inhibit apoptosis in BC cells by regulating the miR-675-5p/Bcl-2 axis. In addition, another study published in the journal Cancer Research showed that exosomes derived from apoptotic BC cells contain the lncRNA TUC339, which can induce apoptosis in recipient cells by inhibiting the expression of the anti-apoptotic protein Bcl-xL.

Conclusion: These findings suggest that exosomal lncRNAs play an important role in regulating apoptosis in BC, and that targeting exosomal lncRNAs may offer a promising approach for the development of novel anti-cancer therapeutics. Furthermore, exosomal lncRNAs may also serve as diagnostic markers for BC, as they can be readily isolated from body fluids and their expression profiles can be used to distinguish cancerous from non-cancerous tissues.

G-1888

Investigating the Efficacy of Vagus Nerve Stimulation for Drug-Resistant Epilepsy in Children

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Introduction: Approximately 10-20% of epileptic children develop drug-resistant epilepsy which has broad implications for their education, childhood activities, and social functioning. Refractory epilepsy is defined as failure of complete response to anti-epileptic drugs. According to current investigations, there are controversy in our knowledge regarding the safety and efficacy of VNS in children younger than 12 years old. Therefore, we performed this study and aimed to better evaluate the safety and efficacy of VNS in children younger than 12 years.

Method & material: This retrospective study comprised two groups. In the first group, patients (N= 21) underwent VNS implantation procedure and second group, (N=23) received no VNS implantation. Drug resistant epilepsy was defined as "the failure of adequate trials or two tolerated, appropriately chosen and used antiepileptic drug schedule to achieve sustained seizure freedom". The main study parameters are as follows: (1) The primary outcome was 50% responder rate (50% RR), the proportion of cases with 50% reduction of seizures at the last follow-up. (2) changes in patients' status in VNS group after procedure compared to before procedure. Statistical analyses were performed using SPSS software version 18 for windows (SPSS Inc, Chicago, IL, USA).

Result: The primary outcome was 50% responder rate (50% RR), the proportion of cases with 50% reduction of seizures at the last follow-up. 58% of patients underwent VNS showed the response rate of 50% reduction in seizure frequency. There was significant improvement in memory problem, work/ school limitation, social limitation, and tachycardia 6 months after VNS procedure compared to before VNS procedure in patients (P0.05) . However, there were no significant improvement in energy level, sleep pattern, and feeling management of patients before and after VNS surgery (P0.05).

Conclusion: Considering the significant reduction in the frequency of seizures and improvement of areas related to quality of life in patients, we recommend VNS as an effective treatment modality for drug-resistant epilepsy in children.

G-1890

Covid-19 breakthrough infection characteristics; a case-control study during delta wave of covid-19 pandemic

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Introduction: Although global Covid-19 immunization helped mitigate the SARS-coV2 pandemic, the incidence of covid-19 breakthrough infections is growing quickly. These infections tend to have milder symptoms and a better prognosis. As a novel phenomenon, clinical presentations must be evaluated to prevent misdiagnosis

Method & material: in this nested case-control study, 291 vaccinated patients and 580 non-vaccinated patients were enrolled.all the eligible patients who were hospitalized at healthcare facilities in Fars province during August and September 2021 were included. Vaccinated patients were included in the analysis if the symptoms started 14 days after vaccination. All the patients were confirmed with COVID-19 based on the molecular polymerase chain reaction (PCR) test. Collected data contain demographic data, symptoms at arrival, underlying health problems, hospital stay, and outcome. Further information for vaccinated patients was collected. However, all the data were recorded in an electronic database registryThe frequency of covid-19 infection signs and symptoms and some other clinical parameters were compared between these two groups.

Result: length of hospital stays (3.86± 1.24 vs 10.64±2.37, p 0.001), rate of ICU admissions (1% vs 44.82%, P=0.004), and mortality rate (0% vs 5.68%, p 0.001) were significantly lower in the vaccinated group. The frequency of fatigue (25.42% vs 55.68%, p 0.001) and dizziness (36.08% vs 41.55%, p=0.004), and underlying cardiovascular (14.43% vs 34.65%, p=0.01) disease was significantly higher in the unvaccinated group, while myalgia (73.88% vs 46.20%, p=0.02) and paresthesia (23.36% vs 17.58%, p=0.01) were significantly higher in patients with breakthrough infection. In binary logistic regression analysis, length of stay (coefficient=2.24, p=0.016), myalgia (coefficient=0.989, p=0.019), nausea and vomiting (coefficient=2.97, p 0.001), and mortality rate (coefficient=27.25, p=0.001) were differentiating variables between the vaccinated and non-vaccinated groups. According to our analysis, in agreement with several studies (19, 30), hypertension, diabetes mellitus, and cardiovascular diseases were the commonest underlying conditions in both vaccinated and non-vaccinated groups

Conclusion: Patients with covid-19 breakthrough infection had a better outcome, with shorter hospital stays, fewer ICU hospitalizations, and reduced death. While vaccination has reduced covid-19 symptoms such fatigue and dizziness, myalgia and paresthesia have been increased.The authors of this study think that the presenting symptoms of patients with covid-19 infection are a reflection of both disease severity and vaccination status. Therefore, it is crucial to determine the key signs or symptoms that help us distinguish vaccinated patients from non-vaccinated ones.

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G-1892

Estimated direct out-of-pocket (OOP) payment of patients for the costs of diagnosis and treatment of covid-19 disease in reference hospitals for the treatment of this disease in the south of Kerman province

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Introduction: Direct payment out of pocket is one of the payment methods in Iran's health system. This study was conducted with the aim of estimating direct out-of-pocket (OOP) payments of patients for the costs of diagnosis and treatment of covid-19 disease in hospitals covered by Jiroft University of Medical Sciences.
Method & material: This descriptive-analytical study was conducted cross-sectionally in 1400. The financial records of 450 patients with covid-19 hospitalized in the hospitals covered by Jiroft University of Medical Sciences were selected and analyzed using stratified random sampling. Data was collected using a researcher-made form. Data were analyzed using t-test, ANOVA and Pearson's correlation coefficient using SPSS23 software at a significance level of 0.05.
Result: The total direct costs were estimated at 25208899708 rials, of which 9.37% was the patient's share (2361227375 rials). A statistically significant relationship was observed between the length of stay and the type of insurance plan with OOP (P =0.05).
Conclusion: According to the results, 9.37% of the total costs were paid directly from the patients' pockets. The findings of this study indicate the urgent need to make decisions and implement effective interventions to deal with covid-19 through controlling risk factors and using the successful experiences of other countries and recommending international organizations to reduce the cases of infection and then reduce the financial burden of the disease on the sufferers as well as It confirms the expansion of the role of insurance organizations.

G-1895

Association Between Helicobacter Pylori Infection and Inflammatory Bowel Disease: A systematic review

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Introduction: Autoimmune diseases including inflammatory bowel disease (IBD) are considered one of the most significant disorders of the immune system, in which the prolonged and chronic processes eliminate self-tolerance to the auto-antigens. Modern Gastroenterology has made significant advancements since Helicobacter pylori was first found in the stomach and its pathogenic effect was discovered. According to the research conducted during the nearly 40 years, it has been found that this bacterium is associated with a natural history of many upper gastrointestinal diseases. This review aimed to evaluate the association between H. pylori and autoimmune diseases including IBD.

Method & material: All the case-control, cross-sectional, cohort studies to the editors before June 2023 were collected by searching PubMed, Scopus, Embase, and Google Scholar regarding the H. pylori infection and its association with autoimmune diseases including IBD were considered eligible and included in the study. The eligibility of studies was determined after reviewing and evaluating the titles, abstracts, and full-text of studies. Inclusion and exclusion criteria The included studies needed to be focused on the main idea, using standard methods including culture, gram staining, ELISA, Sequencing and PCR-RFLP. However, the studies published in non-English language and studies based on nonclinical samples, studies on laboratory animals, and studies on other autoimmune diseases were excluded.

Result: The epidemiological literature generally supports a negative correlation between H. pylori and IBD. In general, gastrointestinal pathogens are thought to be environmental triggers for new IBD and outbreaks of existing ones. But some bacterial pathogens like H. pylori and parasites like Trichinella spiralis are negatively correlated with IBD. H. pylori infection has no connection with the medication and classification of IBD. In addition, the elimination of H. pylori may result in the relapse of IBD. It was shown that eliminating H. pylori would not affect the short-term disease activity of IBD. It is maybe in connection with the reduced function of the gastric acid barrier caused by the infection of H. pylori, which protectively effect IBD's progression. A growing body of data supports this kind of protection, which may be mediated by the expression of stron-specific components, particularly CagA.

Conclusion: In conclusion, the majority of research supports a negative association between H. pylori and IBD, but some researchers suggest that only CagA seropositive H. pylori exposure may be relevant to IBD. Whether the eradication of H. pylori leads to IBD needs further research

G-1896

Evaluating the expression of selected long-coding RNAs in gastric cancer cells treated with coumarin: Possible mechanisms for anti-cancer activity

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Introduction: Gastric cancer is a serious malignancy with a poor prognosis. Long non-coding RNAs (lncRNAs) can serve as prognostic markers for gastric cancer since they can affect several cancer-related processes. Coumarin is a natural product with some useful anti-cancer properties. Here, we measured the expression of selected lncRNAs (RuPAR, SNHG6, CASC11, and their targets, miR-340-5p, p21, E-cadherin, and CDK1) in AGS gastric cancer cells treated with coumarin.

Method & material: This experimental study was performed on gastric cancer AGS cell line. The MTT test was used to assess the cell viability of AGS cells after exposure to coumarin. The expression of the lncRNAs (RuPAR, SNHG6, and CASC11) and miR-340-5p was evaluated by qRT-PCR. Western blot analysis was used to measure changes in p21, E-cadherin, and CDK1 expression. The data was analyzed using SPSS version 19. The groups were differentiated by conducting ANOVA test.

Result: Coumarin decreased AGS viability in a dose-dependent manner (p 0.05). The coumarin treated cells had lower levels of the mRNAs of lncRNAs SNHG6 and CASC11 compared to control (p 0.05). Moreover, compared to the control group, the coumarin group showed higher expression levels of lncRNA RuPAR. Some lncRNA targets, including p21, E-cadherin, and CDK1, showed lower expression in the coumarin group compared to the control by Western blotting (p 0.05).

Conclusion: Coumarin could be a promising pharmacological candidate to be included in gastric cancer treatment regimens because it modulates lncRNAs and their targets.

G-1898

The effect of psychological and spiritual self-care training through telenursing on the death anxiety of the elderly covered by the community health centers of Gonabad city during the Covid-19 disease in 2021

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Introduction: The covid-19 pandemic has a heavy impact on the elderly and is associated with many challenges, including death anxiety. Due to the fact that spirituality, as the basis of beliefs, can play an essential role in ensuring and improving the mental health and quality of life of the elderly. Therefore, the present study was conducted with the aim of the effect of psychological and spiritual self-care training through tele-nursing on the death anxiety of the elderly covered by the community health centers of Gonabad city during the covid-19 disease.

Method & material: This semi-experimental study was conducted on 52 elderly people eligible to participate in the research who referred to urban community health centers in Gonabad city. The inclusion criteria included being 60 years old or older, speech and hearing health, cognitive health, and the ability to make phone calls, and the exclusion criteria included being admitted to the hospital, not participating in face-to-face training sessions, and suffering from mental illnesses based on the health record of the elderly. The data collection tool was a two-part questionnaire including demographic information and Templer's death anxiety scale. After completing the pre-test, the participants were randomly assigned to one of the intervention and control groups. For the intervention group, an in-person training session was held for about an hour. Then telephone follow-ups were done twice a week in the first month and every week in the second month, totaling 12 follow-ups. Usual health care was

Result: The level of death anxiety before the intervention in the intervention and control groups was 49.19±11.04, 45.92±9.38 respectively, which was not statistically significant. But after the intervention, the average death anxiety in the intervention and control groups was (36.62±8.49) and (42.31±9.76), respectively, which had a statistically significant difference (p0.001).

Conclusion: According to the findings of the research and the scores obtained by the two studied groups, it can be said that psychological and spiritual self-care training is effective in improving the death anxiety of the elderly during the covid-19 pandemic, which as a A non-pharmacological and low-cost intervention is suggested with the aim of improving the psychological status in the urban society.

G-1899

Circulating inflammatory and neurotrophic factors and MS-related cognitive impairment

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Introduction: Cognitive impairment (CI) is a common but neglected sign of multiple sclerosis (MS). This study aims to assess the correlation between the circulating markers of inflammation and neurotrophic factors and MS-related CI.
Method & material: In this cross-sectional study, CI was evaluated using the Cambridge Neuropsychological Test Automated Battery (CANTAB), and the serum levels of interferon-γ (INF-γ), C- reactive protein (CRP), ciliary neurotrophic factor (CNTF), and glial cell line–derived neurotrophic factor (GDNF) were measured based on Enzyme-linked immunosorbent assay (ELISA).
Result: A total of 65 MS, including 21 patients in CI and 44 patients in NCI groups, have participated in this study. There was no significant difference between the groups regarding the demographics, disease duration, and expanded disability status scale (EDSS). IFN-γ, CRP, and GDNF were significantly different between the groups (Figure 1). IFN-γ and CRP serum levels had an association with subtests of RTI and PAL tasks. GDNF levels in the serum correlated with subtests of SWM and RVP tasks. However, no association was shown between serum levels of CTNF with any of the CANTAB tasks. After adjusting for age, sex, disease duration, and EDSS, IFN-γ ($p=0.041$), and GDNF ($p= 0.037$) factors revealed a significant difference between groups.
Conclusion: Circulatory level of inflammation markers (IFN-γ) and neurotrophic factors (GDNF) can be used for the detection of cognitive impairment in MS patients.

G-1900

The effects of different air pollutants on the respiratory disease of asthma in the countries of the world

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Introduction: Asthma is a common chronic systemic disease in the world, which is caused by interactions between genetic and environmental factors. The result of air is a mixture of pollutants, which includes solid and liquid particles suspended in the air. Air is a frequently studied environmental factor associated with both asthma-related morbidity and mortality. Therefore, in this research, the effects of different air pollutants on the disease of asthma is discussed.

Method & material: In this review, Google Scholar, Pubmed, Web of Science, and Science Direct databases were searched for related articles using the keywords Air pollution, Asthma, Health effect, Particles, and Air pollutants.

Result: The results of studies on the effect of different air pollutants on asthma showed that there is a statistically significant correlation with long-term exposure to outdoor air, especially black carbon (BC), nitrogen dioxide (NO2), and potential suspended particles. Diameter ≥ 2.5 micrometers (PM2.5) and suspended particles with a diameter ≥ 10 micrometers (PM10) cause childhood asthma from birth to 18 years old. Epidemiological studies also show that nitrogen dioxide (NO2), sulfur dioxide (SO2), and ozone (O3) may increase the complications of asthma. New evidence suggests that traffic-related air (TRAP), outside of ambient air, triggers the onset of childhood asthma. The results of studies show that there is a positive relationship between benzene with the rate of respiratory diseases in the hospital. Acute exposure to aerosols with an aerodynamic diameter of less than 2.5 micrometers is associated with an increased risk of death due to asthma, pneumothorax.

Conclusion: PM emissions from biomass burning are associated with the risk of coughing and shortness of breath, chest tightness, wheezing, and other respiratory symptoms, even short exposure to PM can be harmful. Ambient air pollutants that increase asthma patient referrals such as SO2, NO2, PM10, PM2.5, and CO may be produced from terrestrial sources, while O3 is from marine sources and can be said to be pollutant dependent. environmental conditions and visits of asthma patients are closely related to seasons, especially spring. It can be stated that very small UFP particles (particles with an aerodynamic diameter of less than one hundred nanometers) are related to the reduction of lung and airway function in people with asthma.

G-1901

MRI Findings in Late-Onset Multiple Sclerosis; a Systematic Review and Meta-Analysis

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Introduction: Multiple sclerosis (MS) commonly affects young adults at the ages 20 to 40 years old, but it can onset at each age. Late-onset multiple sclerosis (LOMS) is defined as symptoms initiating after the age of 50. Because of similar manifestations between LOMS and other diseases of the elderly, misdiagnosis, and a remarkable gap in diagnosis of LOMS is a challenge of the elderly population. Since its technical development in the early 1980s, magnetic resonance imaging (MRI) has quickly been adopted as an essential tool in supporting the diagnosis, longitudinal monitoring, evaluation of therapeutic response, and scientific investigations in MS. In this systematic review, we elevate the MRI profiles of LOMS cases, based on published studies. As spinal cord involvement is an important cause of disability in patients with MS, we also investigated the proportion of spinal cord involvement in LOMS cases.

Method & material: MEDLINE via PubMed, EMBASE, and Scopus databases were searched with the multiple sclerosis, MS, late onset and LOMS" keywords, on November, 2020, with no restrictions and updated via hand searching in October 2021. Two independent researchers screened the records in title/abstract and full-text stages and extracted the data using a data extraction table. The meta-analysis was conducted using the Comprehensive Meta-Analysis (CMA) with 95% confidence intervals and 0.05 level of significance for p-value.

Result: 733 records were screened in the title/abstract and 70 studies in full-text stages and finally 16 studies were included in this systematic review (figure1). In one of the included studies in a Canadian setting, spinal cord involvement was seen in 100% of patients, but this study was limited by size (n= 12) and the age of patients was above 60 in time of diagnosis of MS. On the other hand, the lowest spinal cord involvement (29.1%) belonged to a study in an Iranian setting with 48 patients. The details of included studies are reported in table 1. Based on the meta-analysis in random effect model 65.4% (95% CI: 49.7% to 78.3%) of LOMS casas had spinal cord involvements with 89.79% I2 heterogeneity (p-value 0.01) (figure2).

Conclusion: There is a significant rate of spinal cord involvement in LOMS cases, which can cause a significant disability in MS patients and affect the patients' quality of life. Improvement in MRI techniques has allowed a better assessment of correlation between the clinical and radiological parameters. Not only does MRI identify MS-like lesions, but it also excludes other potentially mimicking pathologies, so increasing the knowledge regarding the MRI finding of LOMS cases, can help clinician in timely diagnosis of the disease.

G-1902

Preparation and optimization of Mupircoin nanosuspensions by the use of Box–Behnken design and utilizing it in forming nanofibers

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Introduction: This study attempted to develop nanofibers Containing a topical antibiotic, mupirocin (MP), as an alternative wound-healing material for infectious wounds. The optimized nanosuspension for forming nanofibers was needed first. Different polymers were utilized in this study and the impact of formulation and process parameters On zeta potential and particle size were examined.

Method & material: Different polymers such as sodium lauryl sulfate (SLS), carboxymethyl cellulose (CMC), Tween20, Tween 80, Polyvinylpyrrolidone (PVP), Polyvinyl alcohol(PVA), Hydroxypropyl methylcellulose(HPMC) were utilized and then Mupirocin dissolved in acetone was added while homogenized and then particle size and zeta potential of each solution was examined, afterward the 3 best polymers according to their size and zeta potential were chosen and nanosuspensions with different concentrations of polymers were prepared, Subsequently by the use of experimental design optimized concentrations were made and the best formulation was chosen for nanofibers formation.

Result: 1% solutions of 7 polymers were used with adding 40mg mupirocin to each solution causing nanosuspensions and the 3 best suspensions in terms of particle size and zeta potential were PVP, SLS, and Tween 80. 4 Different concentrations of each of these polymers (0/5,1,2,4%) were made and by adding mupirocin to each solution and use of homogenizer nanosuspensions were prepared. By the use of Experimental design, 17 samples were made accordingly and the optimized solution was chosen.

Conclusion: PVP, SLS, and Tween 80 were considered the best polymers by the size and zeta potential observed and by the use of box Behnken model using experimental design software this combination seemed to be the best one: SLS 0.5%, Tween 80 1.34% and PVP 1.93%. This combination with the optimized size of particles was utilized for forming nanofibers.

G-1903

The effect of gallic acid on the level of malondialdehyde and proinflammatory cytokines in the cerebellum in Rat Model of the hepatic encephalopathy

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Introduction: Acute liver damage leads to jaundice, electrolyte disorders and hepatic encephalopathy (HE). HE is a serious neuropsychiatric syndrome resulted from acute and chronic liver diseases. Overt symptoms of HE includes personality changes, sleep disturbances, ataxia, and asterixis as well as impairment of learning ability and memory formation, which may ultimately lead to coma and death. In animal models bile duct ligation (BDL) has been accepted a valid model for HE. In this study, the effects of gallic acid (GA) against BDL-induced injuries in cerebellum tissues were investigated.
Method & material: 24 male Wistar rats were randomly divided into four groups (n=6): Control, BDL, BDL+ 20 mg/kg GA, BDL+ 30 mg/kg GA. Rat were anesthetized by ketamine and xylazine. Then, BDL surgery was performed. Rats received GA by gavage daily for 28 days. Then, Animals were euthanized 28 days after BDL and cerebellar tissues were separated. Malondialdehyde (MDA), and expression of inflammatory cytokines such as interleukin-6 (IL-6), tumor necrosis factor-alpha (TNF-α) were investigated in cerebellar tissue.
Result: MDA, IL-6 and,TNF-α in BDL groups increased significantly compared to control group (p0.05).GA significantly decrease MDA, IL-6 and,TNF-α in treated groups compared to the BDL group (p0.05).
Conclusion: Gallic acid (GA), a well-regarded compound with robust antioxidant and anti-inflammatory properties, exhibited notable effectiveness in reducing oxidative stress and inflammation in cerebellar tissues in a model of hepatic encephalopathy induced by bile duct ligation (BDL). This finding holds promise for GA as a potential therapy for neuroinflammatory disorders.

G-1904

Treadmill Exercise and Tryptophan Supplementation Upregulate Brain Antioxidant, Synapsin 1, and PSD95 mRNA and Prevents Age–Related Memory Decline in Wistar Rats with High Fat Diet

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Introduction: Exercise training, especially with antioxidant and anti-inflammatory supplements, plays an effective role in reducing the progress of dementia-related diseases. L-tryptophan is one of eight essential amino acids that cannot be synthesized in the human body and must be supplied by the diet. This study aimed to investigate the effects of treadmill exercise and tryptophan supplementation on brain antioxidant levels, synapsin 1, PSD95 mRNA, and age-related memory decline in Wistar rats with a high-fat diet.
Method & material: A total of seventy-five male Wistar rats were randomly divided into five groups (n = 5 in each group with 3 replicates); the first group (LF) was administered daily with the standard low-fat diet; the second group (HF) was administered daily with the high-fat diet; the third group (HFTS) was administered daily with the high-fat diet and the tryptophan supplement; the fourth group (HFETS) was exercised and administered daily with a high-fat diet with the tryptophan supplement; the fifth group (HFE) was exercised and administered daily with a high-fat diet only. Exercise training was performed on a rodent treadmill with 12-56 m/minutes, three days/week for eight weeks. At the end of the exercise protocol and behavioral test, rats were sacrificed and brain tissue was removed for considering brain antioxidants, synapsin 1, and PSD95 mRNA.
Result: The results showed that the administration of tryptophan with exercise to rats with a high-fat diet for eight weeks increased learning and spatial memory and reduced anxiety and behavioral confusion compared to groups prescribed with either tryptophan supplementation or exercise alone ($p<0.05$).
Conclusion: It can be conducted that supplementation of tryptophan along with exercise training decreases cellular risk factors of aging in the brain and inhibits memory deficit due to aging.

G-1906

The Effects of COVID-19 Pandemic on Quality of Life; a Survey on Mildly Disabled Multiple Sclerosis Patients

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Introduction: This study focuses on the short-term impact of the COVID-19 pandemic on the health-related quality of life (HQoL) of MS patients in Tabriz, Iran. Although having MS does not increase the risk of severe infection (1), certain medications may weaken the immune system. The pandemic has been shown to have negative effects on the quality of life of various populations. Factors such as social consequences, family impact, physical disability, and fear of changing treatment contribute to the overall impact on MS patients' quality of life.

Method & material: This is a cross-sectional study from October 2019 to Jun 2020. The first stage of collecting data was between October 2019 to February 2020, before COVID-19 pandemic, as a part of another published study, and the second stage was during the COVID-19 pandemic in May and Jun 2020. We used the Persian version of MS quality of life-54 (MSQOL-54) questionnaire, designed by Vickrey et al. (2-4), for measuring HQoL. According to drug usage, we divided patients into three groups of oral, injection and infusion medications. The results of the first and the second stages of study are compared by patients, themselves using IBM SPSS Statistics 26.0 (SPSS Inc., Chicago, IL, USA) with a 0.05 level of significance and 95% confidence interval.

Result: 50 RRMS (Relapsing remitting MS) patients involved in this study. Overall physical (69.29±16.59 to 68.40±20.95) and mental health (67.36±19.02 to 66.76±22.70) composite scores decreased slightly, but these changes were not significant (P=0.67, P=0.83). Figure 1 is a summary of the scores of subscales of the MSQOL-54 questionnaire, before and after the pandemic. Generally, none of these changes were statistically significant. The severity of MS according to the Expanded Disability Status Scale (EDSS) score, had an association with physical function (p0.01), physical role limitation (p=0.01), overall quality of life (p=0.01), emotional well-being (p=0.04), physical (p=0.01) and mental (p=0.03) health composites changes. Also, comparing types of medications, didn't reach any significant difference in any HQoL subscale between oral, injection and infusion DMD users (for overall score; p-values=0.18 and 0.24).

Conclusion: The effect of pandemic on HQoL of mildly disabled MS patients is not significant. The change of HQoL mental and physical health composites is associated with severity of MS, but age, education, medication, and duration of the disease couldn't affect these changes.

G-1907

Formulating Melatonin Gel for Wound Delivery: Preparation, Physicochemical Characterization, and Stability Profile

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Introduction: Melatonin as the main controlling circadian rhythm hormone has pleiotropic effects such as stimulating collagen synthesis, anti-aging, anti-inflammatory, and wound healing. Due to its poor and variable oral bioavailability, topical formulation of melatonin can be an option for treating wounds.
Advantages of gel formulation including rehydrating tissues, enhancing autolytic debridement, and promoting moist healing, makes it a superior drug delivery system to be used on wounds compare with other topical forms. Carbomer is one the common polymers used in therapeutic gel formulations which has benefits such as high viscosity in low concentration and good temperature stability.
With considering this, the current study was designed to prepare a carbomer-based gel formulation of melatonin with possibility of application in open wounds. Furthermore, it focused on improving melatonin solubility and physicochemical analysis of the formulation such as stability profile, drug release, and microbial testing as important properties of a therapeutical product.
Method & material: The preformulating assessments such as increasing melatonin solubility and obtaining suitable viscosity were done to choose excipients with proper amount/concentration. Safety of excipients was also checked. Then, optimized formulation was characterized in terms of organoleptic properties, viscosity, spreadability, pH, stability, drug release, and microbial control tests.
Result: Optimized melatonin gel formulation contained carbomer, polyethylene glycol, propylene glycol, methyl paraben, propyl paraben and sodium hydroxide.
Conclusion: Based on current study, a new carbomer-based gel of melatonin was formulated and evaluated for topical administration in wounds. The results were acceptable according to pharmaceutical standards.

G-1909

A systematic review of the safety and efficacy of Ocrelizumab for progressive multiple sclerosis

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Introduction: Progressive multiple sclerosis (PMS) is a debilitating condition characterized by progressively worsening symptoms. Ocrelizumab, as a monoconal antibody is a novel therapy for MS, but its safety and efficacy in the progressive form have not been comprehensively studied. In this systematic review, we aimed to evaluate the available evidence regarding ocrelizumab, monoclonal antibody, treatment for PMS.

Method & material: After registration of the study protocol in PROSPERO, we systematically searched three major databases for clinical trials involving Ocrelizumab administration for PMS treatment. All the retrieved results were imported into the EndNote reference manager. After removing the duplicates, two independent researchers did the study selection and data extraction. The risk of bias was assessed using the Joanna Briggs Institute (JBI) checklist.

Result: 8 clinical trials investigating Ocrelizumab in PMS patients based on ORATORIO trial were included. The ORATORIO trial was a multicenter, double-blined, placebo-controlled RCT that evaluated Ocrelizumab treatment at a dose of 600 mg; enrolled patients between the ages of 18-55 years who were diagnosed with primary PMS(PPMS) based on the McDonald 2005 criteria, had an expanded disability statues scale (EDSS) score of 3.0 to 6.5, and had a symptom duration of 10-15 years. Ocrelizumab was significantly effective in reducing disability progression, decreasing in the risk of confirmed EDSS≥7, also improving in upper extremity impairment in PPMS patients. Adverse events, upper respiratory infections, urinary tract infections, and nasopharyngitis were frequently reported

Conclusion: Based on our findings, Ocrelizumab is an efficient monoclonal antibody for primary PMS, although it is associated with a higher risk of infection. More research is necessary.

G-1910

Genetic Study on Road Traffic Accidents: A Systematic Review

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Introduction: Road traffic accidents (RTAs) are a leading cause of injury and death worldwide, imposing substantial social and economic burdens. While well-established risk factors such as driver behavior, road conditions, and vehicle characteristics play significant roles in RTAs, recent research suggests that genetic factors may also contribute to accident susceptibility and severity. Understanding the genetic underpinnings of RTAs could provide valuable insights for targeted prevention strategies and personalized interventions. This systematic review aims to explore the existing body of literature on genetic studies related to RTAs, focusing on genetic variants, gene-environment interactions, and genetic biomarkers associated with accident risk and outcomes.

Method & material: a comprehensive literature search was conducted using electronic databases (WOS, PubMed, Scopus) to identify relevant studies published up until now. The search strategy combined keywords related to genetics, road traffic accidents, and related terms. Only studies written in English and involving human subjects were included. The study selection process followed predefined inclusion and exclusion criteria to ensure the inclusion of relevant and high-quality studies. Data extraction and synthesis were performed to summarize key findings and identify common themes across the selected studies.

Result: The initial search yielded many articles, from which a final set of studies meeting the inclusion criteria was identified. The included studies covered a range of genetic factors associated with RTAs, including candidate gene studies, genome-wide association studies (GWAS), and gene-environment interaction analyses. Key findings from the studies included associations between specific genetic variants and accident risk and interactions between genetic factors and environmental variables (e.g., alcohol consumption, fatigue) influencing accident susceptibility. Additionally, studies explored the potential of genetic biomarkers as predictors of accident severity and outcomes.

Conclusion: The findings of the systematic review highlight the complex interplay between genetics and RTAs, emphasizing the need for further research in this area. The identified genetic variants and gene-environment interactions provide valuable insights into the underlying mechanisms contributing to accident risk. However, the current evidence is limited in terms of sample sizes, replication of findings, and consistency across populations. Future studies should aim for larger sample sizes, diverse populations, and standardized methodologies to strengthen the evidence base and facilitate meta-analyses. Moreover, longitudinal studies investigating gene-environment interactions and their impact on accident outcomes are warranted.

G-1912

Investigating the relationship between temperament and academic motivation in medical students of Shahrood in the academic year 1400-1401

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Introduction: Many factors such as family income, having hope, level of self-esteem, personality traits have an effect on academic motivation and individual differences are such that the amount of learning and academic motivation in identical twins is also different, and in the meantime, temperament is also different in identical twins. Different people are different and it affects a person's behavior and ability. Abu Ali Sina has divided the temperament into nine categories of temperament, four of which are referred to as mixed temperaments: hot and wet, cold, and dry, hot, and dry, cold, and dry in humans. The type of temperament affects various factors, including memory, order and discipline, receptiveness, high energy, concentration, intelligence and learning, and each temperament has a certain ability in its natural state.

Method & material: This descriptive-analytical study was conducted using a simple random method on 300 medical students in Shahrood in the academic year 1400-1401. The data was collected using a demographic, mood, and academic motivation questionnaire. The data after collection was entered into SPSS 18. and analyzed with the help of descriptive (mean and standard deviation) and analytical (correlation and chi-square) statistics. This descriptive-analytical study was conducted using a simple random method on 300 medical students in Shahrood in the academic year 1400-1401. The data was collected using a demographic, mood, and academic motivation questionnaire. The data after collection was entered into SPSS 2018.

Result: In this study, the results showed that there is a significant relationship between gender and academic motivation, most of the people in the cold and warm section and moderate condition (60 percent) 180 and the average 16.56 ± 24 and in the dry and dry section also moderate condition (36.7 percent) 110 and They had an average of 4.15±6. In the questions related to academic motivation, in the internal motivation, the highest average was related to the sub-group of knowing 5.32±17.28, and in the external motivation, the highest score was related to the projected adjustment, and in a motivation item, the average was 4.52±20.50. The grades were 12.76±5.72 and in general, the academic motivation of the students was 24.36±117.06, which shows the high academic motivation of the students. Finally, there was a positive and significant correlation between warm and cold temperament with academic motivation (P=0.01).

Conclusion: The results of the present study showed that temperament can play a decisive role in the level of academic motivation of a person, which is suggested to improve the level of academic motivation in students by applying the teachings of traditional medicine and temper correction by health policy makers and also those in charge of education.Considering the mentioned studies and also the importance of being aware of students' mood as an important part of the society.

G-1913

The effects of intracerebral injection of phenylephrine on inflammatory and tonic pain in rat

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Introduction: The prefrontal cortex (PFC) is critical for the emotional and cognitive aspects of pain. It is identified that PFC structural alterations in patients with pain. The pathophysiology of inflammatory pain is far from clear. Although there is ample of evidences for the adrenergic receptors in pain processing, the underlying mechanism of this receptors remains unknown. In the present study, we assessed whether injection of phenylephrine, as a α1-adrenoceptors agonist, within the PFC is involved in the neurobiological basis of inflammatory and tonic pain in rat.

Method & material: Hear, we assessed the intra-PFC injection effects of phenylephrine, as a α1-adrenoceptors agonist, on the tonic pain (using cold allodynia acetone test) and inflammatory pain in rat. Animals (Male Wistar rats) were divided into 3 groups (n=6 / each group): control, formalin (pain group), pain + phenylephrine (10 µg/µl) groups. The phenylephrine was injected 5 minutes before behavioral study (single dose). The inflammatory pain model was induced by injection of formalin into the surface of the hind-paw of rats. Formalin test consists of phase 1 (0–5 min) and phase 2 (10–60) in which the animal shows painful behaviors.

Result: Our data analysis demonstrated that intradermal injection of formalin significantly induced both phase of inflammatory pain (phase 1 and 2). Intra-PFC injection of phenylephrine significantly reduced tonic pain (decrease pa withdrawal frequency in the cold allodynia acetone test). Additionally, administration of phenylephrine significantly decreased inflammatory pain.

Conclusion: Our data suggested that α1-adrenoceptors of PFC have an important role in both tonic and inflammatory pain. Indeed, stimulation of α1-adrenoceptors of PFC by phenylephrine effectively induced analgesia in rats.

G-1914

The effects of hydroalcoholic extract of Eucalyptus leaves on experimental inflammation and pain due to injection of formalin in male rats

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Introduction: Regarding side effects of acute and especially chronic inflammation and incomplete treatment of patients who suffer from these side effects, Eucalyptus has potential use as a medicinal plant. One of the important objectives of biological investigations is to find substances that are involved in relieving pain. The application of herbal medicine instead of synthetic drugs has increased in recent years because of their lower side effects and high varieties of efficient components. The purpose of this study: The effects of hydroalcoholic extract of Eucalyptus leaves on experimental inflammation and pain due to injection of formalin in male rats.

Method & material: This study used formalin test on 30 male rats with an average weight of 220-180 g which were divided into 5 groups and Xylene-induced ear edema and the Formalin Test for demonstrating its anti-inflammatory and antinociceptive effects. In each of these two tests, the animals were divided into 5 groups (each group consisting of 6 mice): Sham, Positive Control (receiving dexamethasone at a dose of 15 mg/kg in the inflammatory test, and receiving morphine at a dose of 10mg/kg in the formalin test), experimental groups receiving hydroalcoholic extract at doses of 50, 100and 200 mg/kg. The Data was analyzed by one-way variance analysis and Tukey's test using SPSS.

Result: Hydroalcoholic extract of eucalyptus leaves reduces xylene-induced inflammation in experimental groups, especially at a dose of 200 mg/kg compared to the control group and the positive control group (P0.05). Also, the hydroalcoholic extract of eucalyptus leaves in all doses, especially in the dose of 200 mg/kg, reduces the pain caused by formalin (P0.05).

Conclusion: The hydroalcoholic extract of Eucalyptus leaves has antinociceptive and anti-inflammatory effects in both phases (especially the inflammatory phase) which is caused by formalin. This effect may be due to the presence of flavonoid and tannin compounds in the plant, which have been known to have anti-inflammatory and pain-relieving effects in the past.

G-1915

The role of artificial intelligence in minimally invasive robotic neck discectomy surgery

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Introduction: Degenerative disc disease is caused by a disturbance in the anatomical structure of the vertebra. The most common neck pain is sensory disturbance due to C6-C5 vertebrae involvement. Intolerable pain or lack of response to non-surgical treatments, there is a strong possibility of damage to the spinal cord, and discectomy is the recommended treatment. Today, with the arrival of artificial intelligence and robotics, with the advantage of no vibration compared to human hands, along with high accuracy and speed, it is a combination that has reduced the risk of the operation and changed the field. This study examines the development of robotic technology and artificial intelligence in the field of minimally invasive surgeries.

Method & material: A comprehensive search method was used to identify relevant articles published between 2010 and 2023. Systematic searches were performed in PubMed, Google Scholar, SID databases using keywords such as artificial intelligence , robotics , neck discectomy , minimally invasive surgery . Studies based on the inclusion criteria were entered into the study, after evaluating the inclusion criteria, the selected studies were analyzed for data extraction and useful conclusions.

Result: The implementation of artificial intelligence in robotic surgery provides the possibility of detailed and step-by-step examination of autonomous robotic surgery. It is expected that the use of artificial intelligence in robotic surgery will have a significant impact on future surgical training and increase success in surgical analysis by realizing precise surgery and also increasing the quality of surgical care.

Conclusion: The selected studies consistently point to the positive effects of artificial intelligence in surgery, duration prediction, intraoperative cancer detection, endoscope guidance, intraoperative video analysis, knotting and automatic bone registration and tracking in orthopedic surgery. Due to the superiority of the anterior method due to the possibility of complete discectomy and complete removal of compression over posterior methods, it is necessary to perform a complete telemetry reading with the help of artificial intelligence-controlled surgeon robots to strengthen the efficiency of the surgical process and predict the postoperative results. . Tensile sensors on the robot's arms help the surgeon move the limbs. However, the implementation of artificial intelligence still brings several challenges and requires clear regulatory, organizational, and clinical conditions in addition to increasing the skill of the surgical staff.

G-1918

Investigating the relationship between learning styles and the score of Basic Life Support (BLS) skill of first year nursing students

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Introduction: Having skills is one of the effective factors in initiating cardiopulmonary resuscitation and its success, which requires the selection of an appropriate educational method. Therefore, this study was conducted to investigate the relationship between learning styles and the score of Basic Life Support (BLS) skill of first year nursing students.

Method & material: This is a cross sectional study. A total of 67 people were selected by census method. A 4-hour session on theoretical and practical basic resuscitation training was held for all participants. Data were collected using demographic profile forms, club learning styles, and Basic Life Support (BLS) skill assessment checklists. Data were analyzed using SPSS 25 software.

Result: The majority of participants in this study were female and interested in nursing education in terms of frequency. Analysis of variance (ANOVA) was used which showed a significant relationship between Basic Life Support (BLS) skill score and learning styles (df = 63.3, F = 2.9, P = 0.038). The post hoc test showed a significant difference in absorbing learning styles with adaptive and divergent with adaptive learning.

Conclusion: The skill score of Real time feedback and Debriefing by video recording methods used to teach Basic Life Support (BLS) is related to adaptive, engaging, and convergent learning styles. It is necessary to conduct prospective and interventional studies of standard teaching methods selected based on learners' learning styles.

G-1920

Investigating the effects of artificial intelligence in gene sequencing with the approach of dealing with and early detection of bioterrorism

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Introduction: Genome sequencing is a process in which DNA organic bases are identified as accurately as possible to investigate and recognize the characteristics of the relevant cell. The scope of human information in the field of genetics has increased a lot. In such a way that it will be difficult to analyze gene data without the help of modern technologies. In recent years, artificial intelligence (AL) technology has grown significantly in the field of medical sciences. One of the fields of artificial intelligence is the extraction, analysis, and classification of genetic data. Therefore, this article aims to investigate the applications of artificial intelligence in the field of genetics, especially genome sequencing with the approach of biodefense and bioterrorism detection.

Method & material: This review study used SID and PubMed search databases to find relevant data from 2013 to 2023. The search included keywords such as sequencing , bioterrorism and artificial intelligence. 10 articles were studied and 3 unrelated or similar articles were removed.

Result: There are various methods for using artificial intelligence in the field of genetics, which can be used according to the subject and purpose of the activity. The various features of artificial intelligence make it possible to examine, analyze, and categorize the largest amount of information and data in the shortest time. With the advancement of this type of technology and the unveiling of biological weapons based on genetics, the need to establish interdisciplinary communication to increase scientific and practical powers in the field of biological defense is felt. Among the challenges in the field of bioterrorism is the identification and production of drugs or vaccines for emerging and unknown biological agents, which is accelerated by the use of artificial intelligence. In recent years, the relationship of artificial intelligence to recognize and deal with the COVID-19 virus has been investigated. This feature will be very effective in emergencies such as bioterrorism.

Conclusion: Considering the special conditions of our country, it is very necessary to develop this type of technology and use it in the field of biological defense. Therefore, experts in the fields of biological warfare computer science, and artificial intelligence must cooperate in this field.

G-1920

Investigating the effects of artificial intelligence in gene sequencing with the approach of dealing with and early detection of bioterrorism

Ali Hamednia [1] ℗, AliReza Jokar [1], Mehdi Kalantari [1], Neda Eskandari [2] ©[1]
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G-1922

Challenges of Charitable Hospitals in Iran and the Solutions to Address Them: A Qualitative Study

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Introduction: n the health system as a public sector, the role of charities and benefactors is important according to the characteristics and types of health services. Charitable hospitals in Iran face serious financial and management problems. Considering the critical role of these centers in the provision of health care and given the lack of in-depth studies in the country, this qualitative study is conducted with the aim of explaining the challenges faced by charitable hospitals Iran and proposing appropriate solutions.
Method & material: This qualitative study was conducted using the framework analysis method. The research population includes senior and middle managers of 12 charitable hospitals as well as staff managers of medical universities from six provinces, including Fars, Tehran, Isfahan, Khorasan Razavi, Khuzestan, and Azerbaijan Sharghi. The purposeful sampling method was used to select the participants. The data collection process continued until theoretical data saturation was achieved. In this regard, 16 managers of charitable hospitals and 17 managers of medical universities were interviewed. The data collection tool in this study was an in-depth semi-structured interview. To analyze the data, we applied framework analysis method. Atlas T9 software was used for data analysis.
Result: The framework analysis led to the identification of three main themes, eight sub-themes and 23 categories regarding the challenges of charitable hospitals. The main themes are management process challenges , economic and financial system problems and resource constraints . Moreover, the results of the analyzes regarding the solutions to address the challenges faced by charitable hospitals led to the identification of 17 categories, five sub-themes and two main themes including organizational excellence mechanisms and resource supply initiatives .
Conclusion: The study indicated that the financial resources of charity hospitals are not sustainable. Therefore, the proposed solution in this area is to use the capacity of permanent income endowments to redistribute revenue in the provision of charitable hospital services. Another problem is the weakness in attracting new capital. professionalization of charity organizations is proposed as a solution. The development of an integrated system for measuring hospital efficiency, the design and implementation of continuous efficiency monitoring programs are among the suggestions that can help the issue of efficiency. The limitation of financial resources is another challenge of charitable hospitals. Charitable hospitals can create a separate foundation that handles formal fundraising operations. Finally, employee participation will be an effective strategy to improve outcomes in charitable hospitals.

G-1924

Association between Neutrophil to Lymphocyte Ratio (NLR), Platelet to Lymphocyte Ratio (PLR) and Mean Platelet Volume (MPV) with Rheumatoid Arthritis activity: an alternative diagnostic method

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Introduction: Rheumatoid arthritis (RA) is an autoimmune disease associated with progressive inflammation of the synovial joints that presents with morning stiffness, joint tenderness, and erythema (1). The diagnosis is based on the clinical presentation, and laboratory studies with American College of Rheumatology (ACR) Guideline for the classification treatment of Rheumatoid Arthritis being the mainstay of diagnosis and treatment in most institutions, with DMARDs (Disease Modifying Anti-Rheumatic Drugs) as the most promising therapies in controlling the disease (2, 3).
Multiple studies have been conducted describing the association of NLR, PLR and MPV with various rheumatological and dermatological conditions, particularly those that are chronic and autoimmune in nature (4); In this study we examined whether a relationship exists between the NLR, PLR and MPV variables and RA activity, in addition to finding the sensitivity and specificity of each variable should an association exist.
Method & material: In this case-control study, patients with already confirmed RA who visited the Rheumatology clinic of Ali-Ibn Abi-Talib hospital in Zahedan, Iran were selected the inclusion criteria were age above 18 years old, an already confirmed RA diagnosis based on the ACR RA Criteria. Patients with confirmed malignancies, infections or other inflammatory and autoimmune conditions were excluded. Data were gathered by DAS-28 (Disease Activity Score of 28 Joints) and their demographics, clinical and laboratory information were collected. Then, 80 patients were categorized into 2 groups (active RA and non-active RA) and 40 healthy controls were added, all of which were adjusted for gender and age. The statistical analysis of the data was performed using SPSS Statistical Analysis Software Version 26 (IBM, New York, USA). ANOVA, Speraman and mann-Whitney were used. To establish cut-off points for sensitivities and specificities of NLR, PLR and MPV in active and non-active RA a ROC
Result: Patients in the active RA group showed significant correlations of NLR, PLR, and MPV compared to those with inactive RA or healthy (P values of 0.001, 0.001, 0.025, respectively). These values were also significantly correlated with positive results of DAS-28 (P values of 0.009, 0.003, 0.005, respectively).
Using ROC curve, we found that NLR 2.19 is associated with active RA with 60% and 87.5% sensitivity and specificity, respectively. PLR 122.30 has 67.5% and 72.5% sensitivity and specificity, respectively. An MPV 8.95 has a sensitivity of 65% and specificity of 77.5% in detecting active RA.
Conclusion: In addition to other biological markers, NLR and PLR make clinically and economically valuable markers in detecting and following active RA, with promising results.

G-1925

Effect of curcumin on sperm parameters in spinal cord injury in a contusion model of rat

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Introduction: Male infertility due to spinal cord injury (SCI) is associated with abnormal semen quality including low sperm count, motility, and viability. Clinical studies have shown that the main cause of infertility after spinal cord injury is oxidative stress. The use of antioxidants has been shown to improve sperm function and fertility. The aim of our study was to investigate the effect of curcumin on the spermatogenesis of rats with spinal cord injury.

Method & material: In this study, 24 adult male rats were randomly divided into 4 groups (n = 6): control, laminectomy, SCI, and SCI + curcumin. Curcumin (100 mg/kg, gavage) was administered to the male Wistar rats underwent contusive SCI at the T10 segment. After 8 weeks, the rat epididymis was removed and after weighing sperm parameters were examined.

Result: The results showed that SCI significantly reduced the weight of the epididymis and the number, motility and viability of sperm compared to the control group (P0.05). Although treatment with curcumin prevented epididymal weight loss, this difference was not significant. Also in the treatment group, sperm parameters showed a significant improvement compared to the SCI group (P0.05).

Conclusion: The results of this study showed that the administration of curcumin prevents fertility damage caused by SCI.

G-1926

Artificial intelligence in diagnosis aspergillus

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Introduction: Invasive Aspergillosis is a challenging infection that requires efficient diagnostics that fungus threat our life. The diseases can become severe if there is an underlying disease Therefore, correct diagnosis helps in curing the disease and early diagnosis is an important factor for the prognosis of Invasive Aspergillosis, Therefore, delaying diagnosis can increase the index of disease
Invasive Aspergillus is caused by its various species, especially fumigatus.
Method & material: Three databases including PubMed, Scopus, WOS were searched according to terms related to different algorithms of Artificial Intelligence. All sides of Machine Learning in detecting, classification and analyzing of genetic factors and, verification of previous studies was considered in search. 35 results for PubMed, 159 for WOS, 247 for Scopus and then 441 from all databases were found. After duplication, 326 articles left for screening. Two independent reviewers screened.
Result: We collected 150 and 60 image samples respectively from standard cases of aspergillosis and mucormycosis. All the images were successfully analyzed by automatic recognition of the two indicators. The independent areas divided by the threshold curve generated by two-dimensional plots of the data clearly include the test data obtained from the cases of Aspergillus and Mucorales.
Artificial intelligence (AI) technologies have been explored for their potential to aid in the diagnosis of aspergillosis. Machine learning algorithms can be trained on large datasets of patient data such as imaging and laboratory test results to identify patterns and characteristics that are indicative of aspergillosis. For example, one study demonstrated that a deep learning algorithm could accurately detect pulmonary aspergillosis in chest CT scans
Conclusion: AI-based decision support systems can be developed to provide clinicians with more accurate and timely diagnostic guidance. These systems can be integrated with electronic health records to help clinicians access patient data and assist in the interpretation of test results.
Overall, the use of AI in the diagnosis of aspergillosis shows promise in improving the accuracy and speed of diagnosis potentially leading to earlier initiation of appropriate treatment and improved patient outcomes.

G-1927

The relationship between the father performance regarding exclusive breastfeeding with the mother performance and the continuation of breastfeeding in parents with a six-month-old infant covered by Bushehr Comprehensive Health Centers in 2022

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Introduction: Breast milk is the best choice for feeding infants. Various factors affect the initiation and continuation of exclusive breastfeeding with mother's milk, and knowing them plays a significant role in promoting this issue. Among the various factors, father's supportive functions with an impact on mother's function can be of special importance. Therefore, the present study was designed and implemented with the aim of investigating the relationship between father's performance regarding exclusive breastfeeding with mother's performance and breastfeeding continuity.

Method & material: This descriptive and analytical study was conducted in 2022 on 220 parents with six-month-old infants covered by the comprehensive health centers of Bushehr city. Parents' performance was evaluated with the validated questionnaire of Panahi et al., which includes 19 Likert questions. Data analysis was done using SPSS software (version 27) and Pearson correlation test.

Result: The results showed that 39% of the samples continued exclusive breastfeeding until six months of age. Also, the results showed that there is a direct and significant relationship between the performance of parents. (r=0.37, p0.001) so that as father's performance increases, mother's performance also increases. Also, there is a direct and significant relationship between the performance of the father and the continuation of breastfeeding. (r=0.48, p0.001) so that with the increase in father's performance, the duration of exclusive feeding with mother's milk also increases.

Conclusion: The results of the present study generally showed that by improving the performance level of fathers in connection with exclusive breastfeeding, it is possible to have a direct effect on increasing the duration of exclusive breastfeeding. Therefore, holding support skills training workshops on helping fathers in breastfeeding before the birth of an infant can play a significant role in increasing the continuity of breastfeeding.

G-1929

A meta-analysis on the association of sugar sweetened beverages intake with the risk of kidney cancer

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Introduction: Kidney cancer is known as a rare cancer with a high rate of mortality. Dietary intakes have an important role in the etiology of this cancer. Recently, observational studies have focused on the role of sugar-sweetened beverages (SSBs). However, findings from the observational studies on the association between SSBs and risk of kidney cancer are conflicting. Therefore, the current systematic review and meta-analysis was conducted to summarize available findings in this regard by considering published observational studies.

Method & material: We carried out a systematic review in the online databases of PubMed, Scopus, and ISI Web of Science, up to February 2023, to find eligible articles. We included observational studies including cohort and case-control studies that assessed any types of SSBs in relation to kidney cancer. Also, we evaluated the quality of included studies using the Newcastle Ottawa Scale.

Result: Overall, ten studies including 7 cohort and 3 case-control studies were included. These studies included a total of 2,519,187 participants and 5,560 cases of kidney cancer. By comparing the highest and lowest intake of SSBs, we found no significant association between SSB intake and risk of kidney disease. However, in the subgroup analyses, we found a significant positive association between total juice intake and risk of kidney cancer so that people in the highest categories of juice intake had 53% higher risk of kidney cancer compared with those in the lowest categories (1.53, 95% CI: 1.18-1.99). For other types of SSBs, no significant association was found. The scores of quality assessment for the most included studies were high.

Conclusion: We found a significant positive association between total juice intake and risk of kidney cancer in adults. However, this association for total SSBs and other types of beverages was not significant.

G-1930

In silico design and validation of an immune-mediating protein against Varicella Zoster Virus (VZV) by computational immunology approaches

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Introduction: Varicella zoster virus (VZV) is an α-herpesvirus causing a primary infection in childhood known as varicella or chicken pox. Then after spending a latent period in the sensory nerve ganglia, the secondary infection emerges as herpes zoster once the immune system loses its integrity in adulthood. The detrimental complications and lack of efficient vaccines to prevent them develop demands to present a new approach in vaccine designs such as in silico vaccines. Bioinformatics reverse vaccinology helps to rapidly design vaccine candidates, unlike traditional vaccinology which could take many years to develop candidates. Here, we select major epitopes of VZV to design a multi-epitope vaccine candidate.

Method & material: We selected major viral epitopes of VZV such as glycoprotein E (gE), gB, gH, and gL. Next, we inserted a TAT box to help the intracellular delivery of vaccine. Vaccine sequence consisted of a TLR4-inducing synthetic RS01 adjuvant, TAT box, as well as CTL, HTL and B-cell epitopes. 3D modelling of the vaccine was performed by homology modelling using UCSF MODELLER. ab initio refinement of the initial structure was performed with modeler and further completed by GalaxyRefine. GROMACS software version 2022.4 was compiled on a UNIX based system and used for simulation of Vaccine-TLR4 I blood-like conditions. Finally, physicochemical properties of the vaccine were evaluated and its immunogenicity using LPS adjuvant for 70 days was simulated by C-ImmSimm. Gene cloning by SnapGene and Pet21b plasmid was performed to ensure gene cloning.

Result: A chimeric vaccine with 350 aminoacids was built. 15 epitopes of CTL and HTL were detected by IEDB and CTLpred analyses. Suitable epitopes for both MHC-I/CTL and MHC-II/HTL were recruited. Our vaccine sequence showed a promising half-life in eukaryotic organelles (over 20 hours). Moreover, docking with TLR by AutoDock software resulted in 5 solutions. Best solution was selected for MD simulation by GROMACS. After minimization of the system and setting the temperature to body temperature (310 K/37 C) (NVT equilibration), the system reached 0 bar (NPT equilibration). Osmolarity of blood was reached by adding Na+/Cl- ions and neutralizing the system.Next, final MD run for 20 ns was performed and analysed by Molecular Mechanics-Possion Boltzman analyses. RMSD was stabilized from 10 ns timepoint onwards. Also, binding energies remained negative for the stabilized last frame of MD trajectory. Visulalization by UCSF Chimera indicated the vaccine-TLR complex did not exceed the box and

Conclusion: We validated a novel vaccine in silico against VZV. Future studies could recruit cell lines to investigate the utility of this candidate. Ultimately, this vaccine may be tested in randomized clinical trials to properly evaluate efficacy.

G-1932

Mean intima-media thickness of bilateral carotid artery in recovered patients: a case-control study

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Introduction: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can be affected cardiovascular system by mechanisms such as initiating systemic inflammation and effect on Angiotensin Converting Enzyme-2 (ACE-2). Prolongation of these inflammatory processes can cause vascular dysfunction, which might have additional implications for cardiovascular health. However, the long-term impacts of SARS-CoV-2 on the structure, flow and stiffness of cardiovascular system remains unknown. Therefore, this study aimed to assess the difference in intima-media thickness of bilateral carotid artery 3 to 6 months after recovery between recovered patients and healthy individuals.
Method & material: In this cross-sectional study, the carotid intima-media thickness (cIMT) in 89 young adults (47 patients recovered from COVID-19 (case) and 42 healthy individuals (control)) were measured by Doppler Ultrasound and finally, the data obtained from the research were analyzed by SPSS V.26 statistical software.
Result: We evaluated 47 young adults (30.80± 5.78 years of age, 7 male and 40 women) 3-6 months after a positive SARS-CoV-2 test result compared with 42 young adults (26.50 ± 5.85 years of age, 5 male and 37 female) who were healthy individuals. In addition, the mean right and left cIMT was significantly lower in COVID-19 patients who had recovered compared to healthy individuals (Right cIMT: Case, 0.38 ± 05 mm vs. Control, 0.40 ± 0.02 mm, P: 0.01; Left cIMT: Case, 0.38 ± 0.05mm vs. Control, 0.40 ± 0.02, P: 0.01).
Conclusion: This study revealed patients who had a previous positive SARS-CoV-2 test result had a lower cIMT compared to case group. This result showed that endothelial dysfunction may not be the main drivers of COVID-19 complication in recovered patients. Although we suggest more studies on the relation between cIMT and future vascular complications.

G-1933

Association between the Age Friendly City Indicators and Social Belonging among Older Adults Residing in Mohammadiyeh City, Qazvin

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Introduction: A sense of belonging is essential for physical and psychological health and social interactions in older adults. The age-friendly city provides a wide range of opportunities for social participation. Therefore, the present study was conducted to determine the relationship between age friendly city indicators and social belonging among older adults residing in Mohammadiyeh City, Qazvin province, Iran.

Method & material: This descriptive-analytic study was conducted on 300 older adults in 2021. The older adults were selected by cluster sampling method from six municipal districts of Mohammadiyeh City. Data were collected using the demographic checklist, age-friendly city, and social belonging questionnaires. Pearson's correlation coefficient was used for data analysis.

Result: The mean age of older participants was 67.55 ± 6 in the range of 60 to 84 years old. The majority of the participants were male (n =157, 52.33%), married (n =216, 72.00%), and illiterate (n =157, 52.33%). The highest mean scores of satisfaction of the older adults were with safety and ease of travel (16.86 ± 4.51) and open spaces of the city (45.61 ± 11.47) indicators. The results did not show a significant association between the age friendly city indicators and the social belonging of older adults (r = -0.057, p=0.330).

Conclusion: According to the results of the present study, although the older adults were not satisfied with the indicators of the age friendly city of Mohammadiyeh city, their social belonging was at a high level.

G-1934

Application of Machine Learning in Fetal Sonographic Age Assessment

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Introduction: Introduction: Fetal sonography is the most important imaging method that provides vital information regarding the care of mothers and fetuses. Currently, the clinical standard for estimating fetal age and diagnosing fetal growth disorders relies on manual measurements of fetal biometric parameters such as head circumference, abdominal circumference, femur length, or the distance from the head to the pelvic bone. Fetal age determination through manual biometric measurements is operator-dependent and time-consuming. Therefore, the aim of this present review is to investigate the application of machine learning in fetal sonographic age assessment.

Method & material: Materials and Methods: Information was collected by reviewing published articles from Google Scholar, PubMed, Web of Science, and Scopus databases without time restrictions, using keywords such as artificial intelligence, machine learning, sonography, and fetal age. The inclusion criteria for articles were related to the application of artificial intelligence and machine learning in fetal sonographic age assessment. Data extraction was performed by two researchers initially based on article titles and abstracts, and if appropriate, in the full text of the articles.

Result: Findings: According to the findings, three machine learning models, including an image-based model, a video-based model, and a combined approach, are used for predicting fetal age. In the image-based model, images of the fetus in the first trimester and the second and third trimesters are directly used to estimate fetal age with fixed pixel dimensions. In the video-based model, fly-to video sequences are employed, recorded by sonographers. In this model, by inputting sequences of pixel values from the video frames, it directly generates an estimate of fetal age. The third model, the combined (ensemble) model, utilizes both the image-based and video-based models. In this model, information from both types of inputs, i.e., standard fetal biometric images and fly-to video sequences, is extracted. Then, using this combined information, the final estimate of fetal age is generated.

Conclusion: Conclusion: The use of combined information may provide a more accurate and reliable estimation of fetal age. Familiarity with these methods by healthcare professionals is likely to increase accuracy in fetal age determination

G-1935

3D-Bioprinting of Gelatin/Starch/Halloysite-nanotube Shear-thinning and Self-Healing Hydrogels for Soft Tissue Engineering

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Introduction: Shear-thinning and self-healing hydrogels have many biomedical applications including 3D bioprinting and injectable delivery systems. They are able to flow under shear stress and re-stablish the gel after removing the applied stress. These capabilities of hydrogels are necessary for 3D bioprinting inks and enable them to be liquefied in the nozzle and form a gel as soon as they exit from the nozzle. Breaking and re-forming non-covalent bonds play an important role in providing such properties in the hydrogel. In this study a shear-thinning and self-healing hydrogel based on gelatin/starch/Halloysite-nanotube (G/S/HNT) were developed for 3D bioprinting soft tissues.

Method & material: Various combinations of these materials were used for preparing the bio-inks to find the optimized ratios of G/S/HNT. Three ratios of G10/S10/HNT5, G10/S10 and G10/HNT5 were selected for the next steps and cross-linked using two types of chemical cross-linkers, i.e. EDC-NHS and glutaraldehyde to improve mechanical properties and degradation rate of the printed hydrogels. All three groups of hydrogels were characterized by compression and rheological tests, degradation, zeta potential measurement, DLS, TEM, SEM, and MTT toxicity assay.

Result: Young modulus was between 0.2 and 1.1 kPa, showing similar stiffness to the fat and the brain tissues. Rheological data indicates non-Newtonian (shear-thinning) and self-healing behaviors. Zeta potential and DLS measurements of HNT particles dispersed in water show a surface charge of -45.2 mV and a hydrodynamic diameter around 411.7 nm, respectively. Transmission electron microscopy (TEM) images confirmed efficacy of sonication process individual dispersion of HNTs in water. Scanning electron microscopy (SEM) was employed to reveal the organized 3D structure of printed filaments. Also, degradation rate of the scaffolds cross-linked with glutaraldehyde was lower than the one's cross-linked with EDC. MTT cytotoxicity assay was exploited to show the biocompatibility of the printed scaffolds in vitro. So, the cell culture media that were incubated with the scaffolds for 24-hours were used at two dilutions of 25% and 100% to culture the L929 cells for 1, 3 and 7-days.

Conclusion: The data displayed no cell toxicity for any of the scaffolds and dilutions. Optical images indicated more stretched and spindle-like morphology for of the cells in the wells cultured with the extracts from the scaffolds cross-linked with EDC rather than glutaraldehyde. Also, SEM images of the 3D scaffolds seeded with the cells, showed full coverage of the filaments with the cells, demonstrating excellent cell adhesion to the scaffolds. Furthermore, H & E and Masson's trichrome staining were employed to confirm cell infiltration into the 3D printed hydrogels.

Overall, the combination of G/S/HNT showed a great potential for 3D printing hydrogels suitable for soft tissue engineering.

G-1937

Acute Kidney Injury Secondary to Trauma Brain Injury (TBI) and the Role of Angiotensin-(1-7): A Potential Treatment in Traumatic Patients

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Introduction: Acute kidney injury (AKI) following traumatic brain injury (TBI) can highly influence the patient's outcomes. Considering the involvement of RAS and Angiotensin II in inducing renal injury after stroke and the protective benefits of angiotensin (1-7), in this study, we decided to evaluate the effects of angiotensin (1-7) on renal function following the induction of brain trauma in rats.

Method & material: In this study, 40 male Wistar rats were randomly assigned to four experimental groups. Each of these groups consisted of 10 animals; namely 1, the control group; 2, the trauma group that was evaluated 24 hours after trauma induction; 3, Angiotensin 1-7 (Sigma St. Louis, MO, USA) group treated with 25 pmol intraperitoneally; 4, Angiotensin 1-7 + Trauma group which first trauma was induced and after 15 minutes Angiotensin 1-7 (25 pmol) was injected intraperitoneally. Then the serum level of BUN, Cr, MDA, Nitrite, and extent of renal damage (which was evaluated based on the KTDS Score) was measured.

Result: Treatment with intraperitoneal Angiotensin (1-7) can reduce the kidney weight which had been elevated by Trauma. Nitrite tissue level decreased after usage of Angiotensin (1-7), Renal MDA decreased in Angiotensin (1-7) treated group than trauma group, but BUN and Creatinine level have not changed significantly after drug treatment and KTDS Score between different groups has not changed significantly.

Conclusion: So far, there is no known definitive therapy for AKI secondary to TBI and the only suggestion about AKI in the TBI setting is limited to supportive interventions. Therefore, finding efficient management to reduce TBI complications can improves the prognosis (rates of mortality and morbidity) of patients. As a result, administration of Angiotensin-(1-7) may be able to use as a potential treatment method.

G-1939

Investigation of breast cancer risk factors in women referring to surgical clinics of Babol hospitals in 1390-1400

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Introduction: Breast cancer is the most common cancer diagnosed in women and the leading cause of cancer-related deaths in women worldwide. Despite the well-known risk factors of contracting it, no comprehensive study was found to investigate these factors in the north of Iran. Therefore, the aim of the present study is to investigate the risk factors related to breast cancer in women in northern Iran over a 10-year period.

Method & material: In this case-control study, we examined patients with breast cancer referred to the surgery clinic of Ayatollah Rouhani and Ayatollah Beheshti Hospitals during the years 2010 to 2014. The inclusion criteria for the study included all women of reproductive age (15-49 years) who had no history of surgery on the ovaries and menopause due to primary breast cancer and had at least 1 ovary if a hysterectomy was performed. be fixed Exclusion criteria included people's unwillingness to participate in the research, patient's death, and lack of access to patients' records. 131 people were in the case group and 131 people were in the control group. T-test and chi-square tests were used to compare the demographic characteristics between the two study groups. Patient information was collected through medical records, and face-to-face or telephone interviews. The data was analyzed with SPSS26.

Result: 262 participants were included in the study, 131 people (50%) were in the case group (breast cancer) and 131 people (50%) were in the control group. The average age of the participants was 98.56 ± 04.11 years. between the case and control groups in terms of age (P=0.289), height (P=0.254), weight (P=0.239), education level (P=0.785), employment status (P=0.661), marital status (P=0.421), place of birth (P=0.668) and place of residence (P=0.454) had no statistically significant difference.The presence of an underlying disease (P=0.015, OR=2.06), less physical activity (P=0.005, OR=0.4), older age at first delivery (P=0.008, OR=1.11), lower age of menstruation (P0.001) , OR=0.630) and history of breastfeeding for at least one year (P=0.005, OR=2.3) were significantly able to predict the incidence of breast cancer.

Conclusion: OCP use, underlying disease, less physical activity, older age at first delivery, younger age at menstruation, and history of breastfeeding for at least one year are associated with the incidence of breast cancer

G-1940

The prevalence of sexual dysfunction among Iranian postmenopausal women: A systematic review and meta-analysis

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Introduction: Sexual dysfunction is a common problem in postmenopausal women and can affect the quality of life of both the women and their sexual partners. The prevalence of sexual dysfunction in postmenopausal women in Iran has not yet been determined. This systematic review and meta-analysis was conducted to identify the prevalence of sexual dysfunction in post-menopause women in Iran

Method & material: In this systematic review and meta-analysis, articles published in scientific databases, including PubMed, Scopus, Web of Science, ProQuest, SID, and Magiran, since the past 10 years were searched. Keywords were sexual function, sexual dysfunction, prevalence, menopause, Iran, and menopausal and their Persian equivalents. The putcome variables were sexual dysfunction and its domains in Iranian postmenopausal women.

Result: Among the 157 identified studies, 8 articles with overall sample size of 1948 women were eligible for this study. Majority of the studies used female sexual function index (FSFI) questionnaire. The overall prevalence of sexual dysfunction was 79.12%. The most common sexual dysfunction domains were lubrication domain (87.96%), sexual arousal (85.75%), and sexual desire (84.06%). The least affected domains were pain and sexual satisfaction with 75.02%and74.94%, respectively

Conclusion: The prevalence of sexual dysfunction and its domains were high among Iranian postmenopausal women. Multidimensional interventions should be designed to improve sexual function in Iranian postmenopausal women.

G-1941

Evaluation and comparison of clinical manifestations, laboratory and radiological findings in tuberculosis patients before and after the COVID-19 pandemic

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Introduction: The global outbreak of the COVID-19 pandemic was a worldwide emergence which increased respiratory symptoms. Due to severe pressures on the health systems, patients with suspected and definite tuberculosis (TB) are likely to face reduced access to diagnostic and treatment services. In addition, most of respiratory manifestations were attributed to COVID-19 infection. Therefore, TB patients may be lead to adverse outcomes. In this cross-sectional study, we compared the clinical, laboratory and radiological findings of TB patients hospitalized at Bou-Ali Zahedan hospital in the pre-COVID (2019) and post-COVID (2022) periods.

Method & material: In this cross-sectional study, 177 TB patients (105 and 72 patients before and after the COVID-19 pandemic respectively) were examined from the patients with tuberculosis hospitalized in Bou-Ali Zahedan Hospital. Clinical manifestation, laboratory results and Chest X-Ray or lung CT-Scan findings were extracted from HIS system and finally obtained data were compared by SPSS software version 26.

Result: Hemoptysis, ESR levels and chest pain were more common in the post-pandemic TB patient with P-values of 0.014, 0.001 and, 0.006, respectively. Our results also showed an increase in the unilateral and bilateral imaging features in post-covid-19 patients. (0.04 and 0.02 respectively).

Conclusion: Given the emphasis on covid-19 and the toll the immune system takes after its infection, it is essential for physician to consider TB infections in covid-19 patients even with a more complicated presentation.

G-1942

Recent methods to analysis antioxidant capacities of postbiotics

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Introduction: People increasingly choose foods based on health benefits and nutritional content. studies have been done on artificial antioxidants that can lead to a number of liver disorders and cancer. research has shown that postbiotics, like their parents (probiotics), have antioxidant properties both in the laboratory and in in vivo tests. since in vitro and in vivo techniques have limitations, more reliable techniques to evaluate antioxidant activity are necessary to understand the mechanisms and develop safe food and drug solutions.
Method & material: The study used the ISI Web of Knowledge, PubMed, Medline, Scopus, and Google Scholar databases to identify relevant postbiotic and probiotic studies from 2000 to 2023. articles on antioxidant properties, postbiotic analysis and evaluation methods in the laboratory, nutrition, and host health effects looked at prevention or improvement of the disease process, and articles that did not have a full text were excluded from the study.
Result: Postbiotics contain a variety of substances that can have antioxidant properties. various in vitro techniques have been created to assess the antioxidant activity and capability of these bioactive substances. however, cell-based assays have increased significantly in recent years due to their ability to capture key elements such as antioxidant absorption, bioavailability, distribution, and metabolism in living systems. Caco-2 cells are the best model for doing bioavailability research. On the other hand, several methods (laboratory, clinical, animal testing and cellular evaluation) have been used to evaluate the antioxidant capacity of the target sample depending on the type of radical produced. also, by using electrochemical and enzyme biosensors, it will be possible to accurately measure the antioxidant capacity of samples and quickly identify all types of radicals in food and body. The sensitivity, specificity and accuracy of antioxidant detection methods can be increased by using disposable biosensors, multi-enzyme systems and chemometric techniques.
Conclusion: Reliable technique evaluations of antioxidant activities are needed for the efficient search for sources of natural antioxidants and the design of new antioxidant molecules. the antioxidant mechanism, the oxidation initiator, the substrate, the ease of expression, and the result of the performance of these views to evaluate the valid activities of the analysis, and finally, the potential of antioxidants as food preservatives or health-improving agents, are appropriate. as in vitro and in vivo techniques have limitations, cellular antioxidant activities (CAA) can gain more attention among assays that use cells. also, bioavailability studies hold great significance in evaluating the biological efficacy of dietary antioxidants. in addition, electrochemical sensors and biosensors are promising tools for antioxidant research due to their high performance, fast response time, miniaturization and reduce the potential for interference from unstable chemicals.

G-1943

Comparison of the effect of intrathecal fentanyl in different doses on the quality and quantity of analgesia in the cesarean section of multiparous mothers

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Introduction: Due to the higher prevalence of adhesions in multiparous mothers with a history of previous cesarean section, the duration of cesarean section in these patients is longer and as a result, longer anesthesia is needed. Also, this anesthesia method is associated with side effects such as nausea, vomiting and itching; Therefore, this study was conducted with the aim of determining the effect of different doses of intrathecal fentanyl on the quality and quantity of pain-free time in cesarean section of multiparous mothers.

Method & material: This Semi experimental study was conducted on 60 pregnant women who volunteered for multiple elective caesarean section with spinal anesthesia. In this study, subjects were randomly divided into two treatment groups (bupivacaine and fentanyl (with doses of 15 and 25 micrograms)) injected into the spinal cord, and the time of starting sensory block after injection, the maximum level of sensory block, the maximum degree of motor block, recovery time The complete motor block, the quality of anesthesia during surgery, the duration of surgery and the complications of anesthesia were investigated and finally analyzed by SPSS statistical software version 26.

Result: The maximum level of sensory block in the 25 micrograms fentanyl group was significantly higher than the 15 micrograms fentanyl group. The maximum recovery time of motor block in the 15 micrograms fentanyl group was significantly higher than the 25 micrograms fentanyl group. The complication of vomiting in the 15 micrograms fentanyl group was significantly higher than the 25 micrograms fentanyl group, however, the onset time of sensory block, the maximum degree of sensory block, the quality of anesthesia during surgery, the duration of surgery, the patient's vital signs during surgery, and anesthesia complications such as itching and nausea had no statistically significant difference between the two studied groups.

Conclusion: Finally, it can be stated that the treatment with bupivacaine and fentanyl (with doses of 15 and 25 micrograms) did not have a statistically significant difference in anesthesia indicators and anesthesia complications (except the maximum level of sensory block, maximum recovery time and vomiting complication). However, in the present study, neonatal complications were not investigated. Therefore, in case of more comprehensive evaluations in future studies, it is suggested to consider Apgar of newborns and adding a control group.

G-1946

Protective effect of Eucalyptol (Cineole 1,8) on pentylenetetrazole–induced seizure in mice threshold through moderation of nitric oxide pathway

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Introduction: Seizure is one of the most common neurological diseases Therefore, it is important to find a combination with a protective and anticonvulsant effect, thus the aim of this study was to determine the Protective effect of Eucalyptol (Cineole 1,8) on pentylenetetrazole-induced seizure in mice threshold through moderation of nitric oxide pathway.
Method & material: In this experimental study 72 male NMRI mice were divided to nine groups. Groups 1-5 that is the groups which received eucalyptol at the doses of 30, 100, 300, 600 and 800 mg/kg in turn, and group 6 received 10 mg/kg L-NAME, Group 7 received 45 mg/kg L-arginine, Group 8 received sub-effective dose of eucalyptol plus L-NAME and Group 9 is The group that received the effective dose of eucalyptol plus L-arginine. PTZ (90 mg/kg) was injected intravenously for induction of seizure. the seizure threshold was determined then mice were euthanized and antioxidant capacity and MDA prefrontal cortex samples and serum and Gene expression in RT-PCR were measured. Statistical analysis was performed using PRISM) by One-way ANOVA and Tukey's post-hoc tests (. P values 0.05 were considered to be statistically significant.
Result: In this study result demonstrate, eucalyptol at the dose of 800 mg/kg and L-NAME administration significantly increased the seizure threshold compared with control group (P 0.001). Sub effective does of eucalyptol plus L-NAME significantly increased seizure threshold and decrease MDA level of serum and brain compared with the control group and group that received the dose of eucalyptol alone(P 0.001).also eucalyptol at the dose of 800 mg/kg significantly reduced the expression of NMDA receptor subunits compared with control groups(P 0.01) and Sub effective does of eucalyptol plus L-NAME significantly reduced the expression of NMDA receptor subunits compared with group that received the dose of eucalyptol alone(P 0.01). Moreover, eucalyptol at doses of 600 mg/kg decreased MDA levels of brain sample and serum and increased antioxidant capacity (P 0.001).
Conclusion: The result demonstrated eucalyptol have protective and anticonvulsant effect and L-Name potentiated the effect of the sub effective dose of Eucalyptol. Protective effect of eucalyptol might be related to decline in constitutive nitric oxide. We are suggested that further studies be performed on the effect of eucalyptol on the nervous system to discover its exact mechanism.

G-1947

Effective treatments for hair loss following Covid-19: A systematic review

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Introduction: Covid-19 hair loss, commonly seen as Telogen effluvium, is the most common finding associated with Covid-19 infection, characterized by diffuse hair loss that affects the entire scalp. Which continues for a long time. Considering the importance of the subject and its effect on the psyche of individuals and the lack of comprehensive studies in this field, the present study aimed to determine the effective treatments for hair loss caused by Covid-19 in patients with coronavirus acute respiratory syndrome 2 as A systematic review study was conducted.

Method & material: In the present systematic review study, all descriptive analytical studies and clinical trials in PubMed, Scopus, Google Scholar, Web of Sciences, Cochrane Library, Weily online library databases, using the keywords Hair loss, Alopecia and COVID-19 were searched from December 2019 until the end of December 2022. The quality of the studies was assessed with the STROBE and CONSORT checklists. The whole study process is based on the PRISMA statement.

Result: Out of 174 studies, after initial evaluations and then review of complete texts, 4 cases were included in the study. Effective therapeutic measures in patients with improved or Covid-19 include injection of platelet-rich plasma (Platelet-Rich Plasma), human follicle stem cell micrograft, hair growth factor formulation (QR678 Neo®) to Inside the scalp, tofacitinib, a Janus kinase-3 inhibitor, has been shown to significantly improve hair thickness and density.

Conclusion: According to the mentioned results, it seems that studies need to be done using the results of this study and reference articles. Other therapies in the large statistical population that have not yet been studied are studied to identify effective therapies through the integration of homogeneous clinical studies.

G-1948

Klebsiella pneumoniae–infected hemorrhagic ulcerative infantile hemangioma: A rare complication

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Introduction: Infantile hemangiomas (IHs) are a common type of vascular tumor in infancy that usually involute and turn into adipose and fibrous tissue by four years without further complications.
Infection as a complication of IHs is rarely reported but considerable due to its impact on an individual's health. Hence, we presented a 6-month-old infant with a large segmental ulcerated IH on her left leg that was infected with Klebsiella pneumoniae (KP).
Method & material: A 6-month-old girl presented with fever, irritability, and a sizeable necrotic ulcer on her left lower leg. At the age of two weeks, a flat red patch appeared on the lateral side of her left leg, which has gradually proliferated and increased in thickness and size over a month, and during this time, she has not been treated with any medications. Upon admission, she had an ulcer with several necrotic sites measuring 6 cm x 5 cm on the lateral side of her shin, which bled occasionally and contained purulent, green-colored discharge. In her physical examination, she was febrile, started seven days before the admission, irritable, and had diarrhea, vomiting, and pain on palpation, but we did not consider lethargy or feeding difficulties. Her family history and the remainder of her physical examination were normal She was hospitalized for two weeks and with suspicion of infected ulcerated hemangioma. Cefepime, methylprednisolone,
Result: Large size, mixed morphology type, segmental pattern, rapidly expanding, and located in bending areas raise the risk for ulceration. In our case, the first ulceration was detected around the peak growth period. We submit both ischemia and vascular insufficiency followed by a rapid expansion as the underlying conditions to explain ulceration of IH. Although our case underwent many treatments since she was 2 months old, no improvements in lesions has been occurred. The super infection in our case occurred due to the lack of timely referral admission and the use of inappropriate treatments by the wound specialist leaded to creating anaerobic conditions and finally caused necrosis in the wound. Currently, the preferred treatment for infantile hemangiomas that are complicated or have ulceration unresponsive to standard wound management is propranolol. Beta-lactams are an essential therapeutic option against invasive KP wound infections. Piperacillin/tazobactam is another preferred empiric option, providing
Conclusion: Rapid expansion of an ulcerated infantile hemangioma should raise concern for possible complications like infection in hemangiomas to closely monitor and provide prompt treatment if necessary.

G-1949

Evaluation of the effect of topical administration and intraperitoneal injection of cinnamon oil on neuropathic pain induced by chronic constriction injury in rats

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Introduction: Neuropathic pain is caused by a lesion or disease that affects the somatosensory system. Oral medications significantly reduce distress in only 30-40% of cases. Also, many patients stop taking medications due to side effects. Studies have shown that eugenol in cinnamon has central analgesic effects. The present study aimed to investigate the effect of local administration and intraperitoneal injection of cinnamon on neuropathic pain induced by the Chronic Constriction Injury method in rats.
Method & material: This study was performed experimentally on seven groups and each group included 6 male rats in the weight range of 250-300 gr. Groups including sham group, control group, positive control group, and cinnamon extract treatment groups received topically (100 mg/kg) and orally at a concentration of 25 mg/kg and by intraperitoneal injection at a concentration of 25 mg/kg, 50 mg/kg. Naloxone, an opioid system antagonist, was used in all study groups to detect the analgesic mechanism of cinnamon extract. Mechanical and thermal allodynia and hyperalgesia were assessed on days 7, 14, and 21. The data was analyzed using SPSS 21 and studied with a one-way variance test.
Result: From day 7 to day 21, the mean response to thermal hyperalgesia and mechanical allodynia stimulation in the treated groups increased significantly (P 0.05). On day 21, the mean response to stimulation of thermal hyperalgesia and mechanical allodynia in the groups treated with gabapentin and cinnamon oil by intraperitoneal injection compared to the sham group did not increase significantly (P0.05) (Figure 1). Also, in the groups treated with cinnamon extract with naloxone, compared to the groups treated with topical, oral, and injectable cinnamon extract, the mean response was lower and the pain threshold was down. However, this difference was not statistically significant (P 0.05) (Figure 2).

Conclusion: Intraperitoneal injection of cinnamon oil at doses of 25 mg/kg, and 50 mg/kg compared to other groups had a better effect on healing nerve damage and reducing neuropathic pain and can be used as adjunctive therapy. Also, the results of the study showed that naloxone has no noticeable effect on the results of the examination tests.

G-1950

Effect of Hydroalcoholic Extract of *Peganum harmala* on Pain and Inflammation in Male Mice

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Introduction: In various cultures and also traditional medicine, *Peganum harmala* is used in different usage, including pain sedation in body parts like leg and backbone, anti-infection, and anti-inflammation. Because of these mentioned reasons in this research antinociceptive and anti-inflammatory effects of this plant have been investigated.
Method & material: This study has used male mice of 20-25 g in weight. In inflammation test, they were divided into 5 groups: sham, positive control (receiving Dexamethasone with a dosage of 15 mg/kg) and 3 groups receiving a dosage of 5, 10 and 20 mg/kg of extract hydroalcoholic of *P. harmala* seeds, and xylene was used to induce inflammation. In order to investigate the analgesic effect of this plant, formalin test was used. In these tests also, mice were divided into 5 groups: sham, positive control (receiving morphine with a dosage of 10 mg/kg), and 3 groups receiving extract of *P. harmala* seeds. Normal saline and extract were injected Intraperitoneal and 15 minutes before the test.
Result: The resulting data were analyzed with one-way ANOVA and Tukey post-test. Extract hydroalcoholic of *P. harmala* seeds with the dosage of 5 mg/kg caused a meaningful decrement in inflammation and pain in acute and chronic phases (p0.001). which is probably due to the compounds found in this plant, especially the monoterpenes found in the hydroalcoholic extract and the phenolic and flavonoid compounds found in that extract, but in higher doses it causes convulsions and death.
Conclusion: Based on research findings, *P. harmala* extract has analgesic and anti-inflammatory effects and can be a suitable alternative to narcotic painkillers. These effects are probably due to the presence of monoterpenes, especially Polygon in the chloroform extract and flavonoids in the ethyl acetate extract. Proving this issue requires a detailed knowledge of the active ingredients of the extracts and their mechanism of action.

G-1951

Co-existence of astrocytoma and hurtle cell carcinoma with rare metastasis pattern: A case report

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Introduction: Hurtle cell thyroid carcinoma is a rare type of thyroid cancer. This type is generally more aggressive than other thyroid cancers and can metastasis to various body organs but metastasis of this cancer to paranasal sinuses and brain is very rare.
Method & material: a 57-year-old woman who presented with dysphagia and an enlarged mass in her neck that had been growing for five years. Physical examination revealed a palpable and painful mass in her neck, and thyroid sonography showed enlargement of both lobes of her thyroid gland and hypoechoic lymph nodes. Reports from CT scans confirmed these findings. The patient had a history of an incidentally diagnosed frontal sinus tumor five years prior, and further testing had suggested that it might be a metastasis from a lung or thyroid malignancy. Biopsy results confirmed that the patient had highly invasive Hurtle cell thyroid carcinoma. During post-surgical evaluations, abnormally high levels of thyroglobulin in her serum were noted, indicating the possibility of metastasis or co-occurrence of other tumors. Brain MRI revealed an infiltrative high signal mass in her left frontal lobe, which was later confirmed to be grade 2 fibrillary astrocytoma. The patient was eventually
Conclusion:: Co-existence of rare malignant tumors in one patient is an infrequent phenomenon which may mislead the diagnosis and treatment. Despite brain masses in patients with other solid organ cancers are more likely to be diagnosed as metastasis, primary brain tumors could also be considered.

G-1952

The effect of vitamin D supplementation on sport performance in athletes: a systematic review

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Introduction: As a micronutrient, Vitamin D can promote bone and muscle growth in nonathletes, suggesting supplementation may also be ergogenic in athletes. Regarding to recent studies, musculoskeletal health and vitamin D status may affect physical performance and also prevent injury in athletes, however the findings are controversial
Method & material: Therefore, the purpose of this systematic review is to summarize the studies that evaluated the effects of vitamin D supplementation on sport performance in athletes .Systematic search was conducted in the online databases including PubMed, Web of science, Scopus and google scholar up to June 2023 without publication date or language restrictions. The following search
Result: evaluated the effects of vitamin D supplementation on muscle function, a positive association was found and it was stated that SPPB increased with exercise. It is also suggested that the beneficial effects of vitamin D supplementation on muscle strength could be due to an increase in the size and amount of type II (fast twitch) muscle fibers.Conclusion:Vitamin D appears to have beneficial effects on muscle performance in athletes, although studies regarding muscle strength are conflicting. Therefore, in order to draw better
Conclusion: conclusions about the effect of vitamin D on athletes, as well as to determine the dosage and duration of the supplementation, it is necessary to design clinical trial studies with higher quality and sample size.

G-1955

Protective effects of Losartan on Cisplatin-induced toxicity in H9c2 cell line

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Introduction: Cisplatin is one of the most potent drugs in the treatment of cancer, which is used in the treatment of testicular, cervical, breast, lung, ovarian, stomach, and bladder cancer. Oxidative stress and cell apoptosis in the presence of oxygen free radicals and reduction of cellular glutathione reserves are the causes of cardiac toxicity of this drug. Due to the role of the renin-angiotensin system in cardiovascular hypertrophy, repair, and remodeling, angiotensin antagonists such as losartan and captopril can be effective in improving heart function. The present study was conducted to investigate the protective effect of losartan as an angiotensin antagonist against the toxic effects of cisplatin in H9c2 cells taken from mouse fetal heart tissue.

Method & material: The study was performed experimentally in vitro. First, they cultured H9c2 cancer cells and exposed the cells several times with different doses of cisplatin and captopril as pilots, and finally obtained the correct doses. They were incubated with a dose of 0.4, 4, and 40 µM cisplatin for 48 and 72 hours, then H9c2 cells were co-treated with 4 µM cisplatin and 800 µM losartan for 48 and 72 h and placed in an incubator for cell viability and MTT test. The effect of this chemotherapy agent and losartan on the expression of Bax, Bcl-2, and Caspase3 genes was evaluated by real-time PCR. The data was analyzed using SPSS 18 and analyzed with a one-way variance test.

Result: The data obtained from the MTT test showed that the cell viability decreases at 48 and 72 hours of exposure and with the increase in the concentration of cisplatin drug (Figure 1). Also, when the cells were exposed to cisplatin and losartan, the cell viability increased to 82% (Figure 2). After 72 hours of exposure to the H9c2 cell line, losartan drug with a dose of 800 µM increased Bcl 2 gene expression compared to the control group, and this change was observed significantly (P0.01) (Figure 3).

Conclusion: Losartan prevents cardiotoxicity caused by cisplatin on H9c2 cells by affecting the expression of genes involved in the apoptosis process. Also, concomitant use of cisplatin and captopril reduced cell mortality (reduced cell apoptosis) and also decreased the expression of genes such as Bax and Caspase3 and increased the expression of the Bcl-2 gene.

G-1956

A case report of Bernard Soulier syndrome in pregnancy

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[2]. PhD student of Isfahan University of Medical Sciences , Isfahan, Iran" "Introduction:: The Bernard

Introduction: soulier syndrome is a scare autosomal recessive hereditary disease from bleeding ،purpura،metrorrhagia،bleeding after delivary,bleeding characteristics to life threating bleedings .the sever disorder platelets functionality is the main characteristic of this syndrome. Pregnancy resulte in maternal and neonatal undesirable outcomes such as maternal hemorrhages
Method & material: This research was a case report on a patient under observation at Al-Zahra Hospital in Isfahan in 1401. The condition of the patient and her child during pregnancy, delivery and up to 6 months after delivery were evaluated and her medical records were examined.

Result: Bernard soulier syndrome can sophisticate the pregnancy conditions.the pregnancy trend in infected women is variable and unpredictablr.in order to diagnosing and threatment of all kind of continuos bleeding, the presice care of Hct,Plt amount and clinical signs monitoring of mother are recomended during pregnancy until 6 weeks after delivary
Conclusion: A pregnant18 years old where suffered from this syndrome whith GA:35w , VB,metrorrhagia and subcutaneous bleeding ,Plt: 47000 and was referred To hospital. didnt have any Signs of pregnancy risk ,with BG: A+,HG:12.8,HCT:38.4,blood culture:medium ITP and some giant platelets.she had hospitalitation in childhood,whith inflamation of duodenum and stomach ,subcutaneous bleeding whith reduction in Plt .her mother had plt disfunctionality. she was under care for 23days.Plt reached to 10000 on 6th day of hospitalization, after that ,during receiving 15gr IVIG and prednozolone75mg,plt got increasing to74000,6platelets units were injected on11thday.on the GA:38w she sectioned due to not progress in Cervical ripening The result of delivery was a3.1Kg boy.on the day of delivery Plt:43000,but the bleeding and VS was normal She was under care for3days .then went home with Plt:24000

G-1959

Older adults' approach to the third-generation universities

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Introduction: With the progress made in the last century, the reduction of the death rate and the improvement of life expectancy, the number of elderly people has increased and their social importance in the society is becoming stronger than ever before. With the onset of old age and retirement, most retired seniors face changes in different aspects of their lives, and since studies have proven the positive impact of learning on people's health and well-being, universities can play the main role in the general health (individual and social) of third generation learners through more effective communication with them. Due to the significant importance of these universities and their lack of expansion in our country, this study was conducted with the aim of explaining the approach of the elderly to the third-generation universities.

Method & material: The present study with a qualitative approach and the application of the content analysis method on 19 elderly members of the Shahrekord Retirees' Center, who had at least one year of retirement and had the maximum diversity in terms of demographic characteristics, using purpose-based sampling and interviews Deep semi-structured interviews were conducted. The interviews were carried out word for word and continued until the information was saturated from the researcher's point of view. Using the MAXQDA 10 software, the teacher and the student independently extracted the codes, and by determining the conceptual units, accurate coding and continuous comparison method, the content analysis of the interviews was done, and the subgroups and main categories were gradually created.

Result: Data analysis was done simultaneously with data collection. In order to determine the validity of the data, the criteria of acceptability, reliability, verifiability, and transferability were used. From all the interviews, 503 preliminary codes were extracted, the codes obtained during the analysis process were placed in 3 main categories, which are obstacles in the tendency of the elderly to university (7 subgroups), facilitating factors in the tendency of the elderly to university (7 subgroups) and expectations of the elderly Among these universities (4 subgroups) were included.

Conclusion: Considering the importance of studies in this field and the lack of such studies, the results of this study can become the basis for future studies in the field of removing obstacles and creating third-generation universities based on the cultural and social characteristics of Iranian society, which is an important step towards promotion and improvement. It is the quality of life of the elderly.

G-1964

13-year-old boy with Senior-Loken syndrome 4 with symptoms of hypopituitarism, mild retinal dystrophy and renal nephrophytosis; A case report

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Introduction:: Nephronophthisis (NPHP) is an autosomal recessive cystic disease of the kidney that is identified based on its different forms of gene mutations. More than 10 percent of NPHP cases can manifest with extrarenal manifestations, including Senior-Loken syndrome (SLSN), mental retardation, liver fibrosis, skeletal changes, etc., and their renal involvement will eventually lead to severe renal failure (ESRD), requiring a kidney transplant.

Method & material:: A 13-year-old boy who was referred to the nephrology clinic of Boali Ardabil Hospital about a year ago to find the cause of high creatinine. In the patient's history and subsequent investigations, there were symptoms of hypopituitarism, mild retinal dystrophy, severe osteopenia, mild liver fibrosis, and NPHP. According to the above, to confirm the diagnosis, a WES genetic test (whole exome sequencing) focusing on NPHP genes was requested, and finally, the diagnosis of SLSN4 (NPHP4) was reported. Currently, the mentioned patient is undergoing medical and symptomatic treatment for renal and extrarenal complications of NPHP.

Conclusion:: According to the patient's history of polyuria and polydipsia, decreased ability to concentrate urine in the morning sample, lack of edema and hypertension as a sign of kidney failure, and a kidney ultrasound report consistent with the disease, including normal kidney size, kidney cyst, increased renal parenchymal echo, and decreased corticomedullary differentiation, NPHP was presented to the patient, and considering that other extrarenal symptoms of the patient could be justified with this syndrome, a genetic study was performed for the patient, which is an accurate and reliable method of diagnosing NPHP. Finally, SLSN was diagnosed with NPHP4 gene involvement.

G-1965

Older adults' approach to the employment and retirement

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Introduction:: In the last century, the number of elderly people has increased with the progress and in Iran it is expected to reach 10.7% by 1400 and 24% by 1429. Considering the role and social importance of the elderly in society and considering retirement as an important stressful event in people's lives, the purpose of this study is to explain the approach of the elderly to the period of employment and retirement and to determine the issues, problems, challenges and needs of the elderly in This was the phase of life.
Method & material:: The present qualitative research was conducted using the content analysis method and the participation of 19 elderly people who are members of the Shahrekord Retired Association, who had at least one year of retirement and had maximum diversity in terms of demographic characteristics. People were selected based on purposeful sampling and until the data reached saturation. Data were collected using semi-structured in-depth individual interviews. After the recording, all the interviews were transcribed word for word and the extraction of codes from the interview texts was done by the teacher and student independently and by MAXQDA version 10 software.The analysis of the content of the interviews continued with the determination of conceptual units, accurate coding and continuous comparison method until the formation of subgroups and main classes. In order to determine the validity of the data, the criteria of acceptability, reliability, verifiability and transferability were used.
Result:: Data analysis was done simultaneously with data collection. The participants of this research were 10 men and 9 women. The information obtained during the analysis process was placed in 6 main categories, which are: programs for the elderly during employment (4 subcategories), challenges during employment (3 subcategories), activities during retirement (5 subcategories), the meaning of retirement (8 sub-categories), reasons for returning to re-employment (3 sub-categories) and strategies to improve the quality of life from the perspective of the elderly (7 sub-categories).
Conclusion:: Considering the change and transformation in the life style and dimensions of people during retirement, it is necessary to pay more attention to programs to maintain and improve public health, improve the quality of life of the elderly and adapt to the retirement period according to their interest.

G-1966

Pregnant women experience of Covid 19 : from stress to performance

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Introduction:: Coronavirus disease (COVID 19) is a viral disease that has become an international public health concern. A health belief model can be used to examine behavior and determinants of behavior. The present study aimed to evaluate pregnant woman's perception about Covid 19 based on health belief model in Isfahan.
Method & material:: This is a cross-sectional study, which includes 100 pregnant women selected by random sampling. Data collection was done by online questionnaire on the prestigious Porsline website. The present questionnaire examines the knowledge and structures of the health belief model, including Perceived susceptibility and Severity, perceived Barriers and Benefits and Self-efficacy regarding the prevention of Covid-19 . Data were entered to SPSS 16 , descriptive and analytical tests such as Shapiro-Wilk test, independent T-test, and Pearson correlation coefficient were used. The significance level was considered to be 0.05.
Result:: The results showed that the knowledge of COVID 19 and preventative methods was at a good level among most women (77% of pregnant women) , There was a significant correlation between education and self-efficacy .Based on the findings, the mean score of knowledge and mean score of perceived susceptibility of mothers who were pregnant for the first time were significantly higher than mothers who were pregnant for the second time or more (P1=0.04, P2= 0.001).However, no significant relationship was observed between other demographic variables and Health Belief Model constructs (P0.05) .
Conclusion:: : Most of the pregnant women had sufficient knowledge about COVID 19. Also the perceived severity and susceptibility scores were higher than other model constructs, which shows women's proper understanding of the risks of covid-19. But half of these women have stated that they do not go to receive services, and this issue can have adverse consequences. The researchers recommend planning to improve other constructs of the model, such as self-efficacy, which is effective in improving women's performance in receiving care.

G-1967

Evaluation of HbA1c Level Correlation with Complications and Morbidities of Elective Surgeries in Diabetic Patients in Sablan Hospital, Ardabil in 2022

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Introduction:: Diabetes is a metabolic and chronic disease. This disease has three main types: type 1, type 2 and GDM. This disease is an important risk factor in terms of causing complications after surgery, so that it increases the risk of infection and increases morbidity and mortality. The purpose of this research is to evaluate of HbA1c level correlation with complications and morbidities of elective surgeries in diabetic patients.

Method & material:: In this casc-control study, 189 diabetic patients referred to Sabalan Hospital of Ardabil for elective surgery in the year 2022 were investigated. Patient information was collected retrospectively based on medical records and self-reported. In addition to demographic information, patient tests (including HbA1c), post-operative complications and morbidities, as well as hospitalization outcome of statistical sample patients in two case groups with hemoglobin Ale of seven and above and control group with HbA1c below seven have been collected. The information was recorded in a researcher-made checklist and entered into SPSS-24 statistical software, and statistical analysis was done on this information. This research was approved by the ethics committee of IAU.ARDABIL (IR.IAU.ARDABIL.REC.1400.075).

Result:: In our study, 189 patients including two groups with HbA1c level of 7 or more and less than 7 were studied. There was no significant difference between the two groups of patients in terms of gender, the type of drugs used for diabetes and the type of surgery. According to the results, only the operation site infection had a significant difference in the two groups, and the OR rate was recorded as 2.41. Re-surgery was higher in the case group, but the p-value was not evaluated as significant. Other cases such as mortality, acute kidney failure, acute coronary syndromes, dysrhythmia, stroke, non-operative infection, readmission and length of hospital stay were not significantly different between the two groups.

Conclusion:: Finally, it can be stated that in this study, no definitive relationship between preoperative HbA1c and postoperative complications (except surgical site infection) was shown in patients with diabetes.

G-1968

The applications of Chatbots in medicine

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Introduction:: In today's world, healthcare professionals face increasing responsibilities due to the growing population, aging, higher rates of illnesses, and overuse of medical services. These challenges, combined with a shortage of medical experts and staff, make accessing healthcare services more difficult and contribute to physician burnout. These issues also lower the quality of medical care and worsen clinical outcomes for patients. Fortunately, technological advancements in artificial intelligence have been integrated into medical care, including the use of patient-centered approaches like chatbots. Chatbots are digital technologies that use artificial intelligence to improve medical care, provide education, and enhance overall health. In this article, we will explore the various applications of chatbots in medicine.
Method & material:: This article was conducted by searching these three keywords healthcare , artificial intelligence , and Chatbots in the PubMed database. Between the years 2019 and 2023, 44 articles were found. After reviewing the articles 10 articles were ultimately selected for this study.
Result:: Studies conducted on cancer patients have shown that virtual assistants can provide unbiased evaluations and judgments, leading to improvements in patient's treatment and diagnosis. Virtual assistants have been particularly helpful in the treatment and diagnosis of breast cancer, colorectal cancer, laryngeal cancer, and prostate cancer. For instance, the chatbot PROSTA has been able to diagnose skin cancer by analyzing patients' urination and skin analyses. Additionally, chatbots have been used to screen for skin cancer by examining images of patients' skin. Chatbots have also helped diagnose diseases with the aid of skin sensors attached to smart shirts equipped with artificial intelligence. Studies have found that chatbots increase follow-up and responsiveness by 55% and reduce the workload of healthcare professionals by 23%. A patient with diabetes has described chatbots as the only way to consider all necessary parameters simultaneously for effective diabetes treatment.
Conclusion:: Chatbots have benefits, especially for the welfare of healthcare professionals and patients, by changing the way treatment is managed and information is provided to patients. Furthermore, it is expected that chatbots will reduce the workload of healthcare professionals by answering patients' questions.

G-1969

The Relationship between Parents Health Literacy and the Health of Preschool Children in Gonabad in 2019

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Introduction:: Childhood is one of the most important periods of human life and ensuring their physical, mental and social health promises a better future(1). Therefore, in order to improve the health of the society, it should be planned to ensure the health of children(2). Children's health, their health literacy and awareness in the matter of caring for children, as well as prevention and treatment of diseases is very important and necessary(3). This research was conducted with the aim of relating the health literacy of parents to the health of preschool children in 2019.

Method & material:: The present study was a descriptive-analytical cross-sectional study that was performed on 200 parents of preschool children in Gonabad. Data collection tools were demographic questionnaire and parental health literacy and child health questionnaire. Data were analyzed using software (SPSS) version 22 using descriptive and inferential statistics and simple regression tests, Pearson or Spearman correlation coefficient with a significance level of less than 0.05.

Result:: The mean age of parents of research units was 28.64 years. The total score of health literacy of parents of research units is 16.55 out of 40 points and the scores of nutrition, growth and development, safety, numerical calculations and health information are 3.83 out of 9 points, 5.94 out of 15 points, 1.84 out of 3, respectively. The score is 1.77 out of 5 points and 3.16 out of 8 points. The results of linear regression test showed that for each increase in parents' health literacy score, the child's physical health score increases by 0.06. Also, regression correlation coefficients show that there is a positive and direct relationship between all dimensions of parental health literacy and children's physical health. P values indicate that the relationship between nutrition, numerical calculations, health information and overall health literacy with the child's physical health was not significant (P≥0.05) but other dimensions including growth

Conclusion: The present study showed that parental health literacy has an effective role on the health of preschool children. As a result, institutions and organizations that deal directly with public health literacy, such as health care networks, should take the necessary measures to promote health literacy in various ways and appropriate to the current situation.

G-1970

Investigating the relationship between moral sensitivity and age discrimination towards the elderly by nurses in special departments and determining the factors related to it

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Introduction:: By identifying and discovering suitable solutions for the factors that may have an effect on the attitude and perspective of nurses on the age discrimination of the elderly, it is possible to prevent possible harm to some extent (1). Considering the importance of moral variables such as moral sensitivity on this component, the consequences of neglecting it such as reducing the quality of care and dissatisfaction, and on the other hand, the lack of a similar study, the present study aims to determine the predictive role of moral sensitivity in age discrimination towards the elderly. Special wards were done for the nurses.

Method & material:: This cross-sectional study was conducted on 145 nurses working in special wards (ICU, CCU, emergency and dialysis) of hospitals affiliated to Shahid Beheshti University of Medical Sciences from May to June 2014 using stratified random sampling method. In this study, a three-part questionnaire was used, including a demographic information form, a nursing care age discrimination questionnaire, and a Lutzen moral sensitivity questionnaire. The data was analyzed with SPSS V.25 software and using descriptive (mean, standard deviation and dispersion indices) and inferential (Pearson correlation and linear regression) statistics. The significance level in this study was considered less than 0.05.

Result:: The majority of nurses present in the study were women (80%) and their average age was 35.14 ± 8.365 years. The average score of age discrimination in this study was 39.73 ± 8.42, which was at a low level. The mean score of moral sensitivity in this study was 91.81±10.98, which was at a high level. The results of the correlation test showed that there is a positive and significant relationship between age discrimination and moral sensitivity. (p=0.007 and r=0.222)

Conclusion:: According to the results of the study, holding educational workshops and necessary measures to increase the moral sensitivity of nurses in special departments can be effective on the amount of age discrimination applied by nurses towards the elderly and reduce them. Therefore, necessary measures by hospitals, nursing managers and governments seem useful.

G-1970

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Aida Ahmadpour [1] Ⓟ, Erfan Pourshahri [2], Nasim Khajavian [3] ©, Kosar Pourhasan [4], Parvaneh Vasli [4]

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Conclusion: According to the results of the study, holding educational workshops and necessary measures to increase the moral sensitivity of nurses in special departments can be effective on the amount of age discrimination applied by nurses towards the elderly and reduce them. Therefore, necessary measures by hospitals, nursing managers and governments seem useful.

G-1971

The effectiveness of linagliptin drug on the consequences of covid-19 in patients with diabetes

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Introduction: Today, Covid-19 has become one of the most important recent challenges of the health system, which causes various complications and, in severe cases, the death of people (1). People with underlying diseases, including diabetes, are more exposed to complications caused by this disease, and the risk of severe symptoms and mortality in diabetic patients with Covid-19 is higher than others (2); Considering the importance of this issue and the lack of a similar study on this concept at the time of the research, this study was conducted with the aim of investigating the effect of linagliptin on the consequences of covid-19 in patients with diabetes.

Method & material: This study was a placebo-controlled clinical trial study that was conducted on 70 diabetic patients with covid-19 admitted to Bahlul Hospital in Gonabad city in 1400. After considering the inclusion criteria such as positive PCR test and history of diabetes according to laboratory tests (BS, FBS), people were included in the study by targeted sampling method. After obtaining written consent, people were randomly divided into control (35 people) and intervention (35 people) groups using permutation blocks of four.In addition to the implementation of routine treatments based on the protocol of the Ministry of Health in both groups, the intervention group received linagliptin 5mg tablets once a day for 14 days. In addition to demographic characteristics, spo2, LDH, D. Dimer indices, the duration of hospitalization until the 14th day after regular drug use and re-hospitalization in the next month were investigated. The data were described using SPSS V.24 software with frequency.

Result: The average age of the participants was 64.5 ± 12.17 years and the majority of them were women (51.4%). The findings of this study showed that there was no significant difference between the two intervention and control groups in terms of age, gender, duration of diabetes, cardiovascular diseases, lung diseases and inflammatory factors upon entry and they were homogeneous (p0.05). The average changes in blood oxygen saturation in the control and intervention groups were 1.47±2.57 and 2.02±3.81, respectively. which was significantly higher in the intervention group than the control group (p0.001). Also, the number of hospital days, ICU hospitalization and mortality in the intervention group were significantly different from the control group (p0.001).

Conclusion: Linagliptin drug can effectively improve the clinical symptoms of diabetic patients with covid-19 and return to the hospital, and since this drug is available and low-cost, while suggesting to conduct additional studies, this method can be used to reduce complications. Covid-19 disease and improving the prognosis of this disease.

G-1972

The protective effects of thiamine on learning and memory impairment induced by beta-amyloid injection in an Alzheimer disease model of male rats

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Introduction: Alzheimer's disease (AD) is a progressive neurodegenerative disorder with abnormal deposition of beta-amyloid (Aβ) peptide and accumulation of neurofibrillary tangles. These processes can be initiated and increased by oxidative stress. We investigated the protective effects of thiamine, a vitamin with antioxidant functions, on learning and memory, using behavioral tests in male AD rats.

Method & material: In this study, 70 male adult Wistar rats (220-250 gr) randomly were divided into seven groups: Control, Sham: this group received 5µl phosphate-buffered saline by intracerebroventricular (ICV) injection), AD: this group received 5 µg Aβ by ICV injection, thiamine 50 and 100: these groups received thiamine at 50 or 100 mg/kg for one month by gavage, and thiamine 50+Aβ and 100+Aβ: these groups received thiamine at 50 or 100 mg/kg for one month after Aβ injection. Learning and memory were examined by passive avoidance learning (PAL) task, spatial memory was evaluated by Morris water maze (MWM) and Barnes maze tasks, and cognitive memory was assessed by novel object recognition (NOR) test. At the end of the study, blood samples were collected and oxidative stress biomarkers, including total antioxidant capacity (TAC) and total oxidative status (TOS), were determined in serum.

Result: ICV injection of Aβ reduced PAL memory in the PAL task, spatial memory in the MWM and Barnes maze tests, and cognitive memory in the NOR test. However, thiamine improved Aβ-induced impairment in learning and memory. Also, TOS values increased and TAC values reduced in the AD group, whereas in groups receiving thiamine, TOS values reduced and TAC values increased.

Conclusion: Thiamine can improve learning and memory possibly due to its antioxidant and neuroprotective effects. Based on the results of this research, thiamine can be considered a therapeutic agent in the treatment and prevention of AD.

G-1974

The relationship between social adequacy and adherence to treatment and factors affecting it in cardiovascular patients discharged from medical training centers

Fatemeh Babaei Kelly [1] © Ⓟ

[1] Student

Introduction: Cardiovascular diseases are one of the most common chronic diseases and one of the causes of disability in affected people. This category of diseases affects the clients by disrupting the functioning of social, family and work relationships. On the other hand, adherence to treatment is one of the most effective ways to prevent complications and progression of cardiovascular diseases, which are affected by various factors. Takes. Therefore, this study was conducted with the aim of determining the relationship between social sufficiency and adherence to treatment and its influencing factors in discharged cardiovascular patients.

Method & material: In this descriptive analytical correlation study, 270 cardiovascular patients discharged from Imam Khomeini (RA) Ardabil Medical Education Center in 1400 were selected by stratified random method. The data collection tools included the social adequacy questionnaires of Flenner and compliance with Madanlo's treatment in addition to the demographic questionnaires which were completed by the samples. The data were analyzed using spss software and descriptive (frequency, mean, percentage and standard deviation) and inferential (correlation) statistical methods.

Result: According to the obtained results, the variable of social sufficiency had a significant relationship with adherence to treatment (R=0.677, P0.05). Also, between the dimensions of cognitive skills (P0.05, R=0.370), behavior (P0.05, R=0.663), emotional sufficiency (P0.05, R=0.503) and attitude Motivational values (P0.05, R=0.449) were observed to have a significant relationship with treatment compliance. Among the demographic characteristics, blood lipid level (R=0.131, P0.05), drug control by family (R=0.131, P0.05) and education level (R=0.131, P0.05) R=0) had a significant relationship with the level of social adequacy.

Conclusion: Considering the significant relationship between the four dimensions of social competence and compliance with treatment in discharged patients, it is suggested that the social competence of patients at the time of discharge should be evaluated and according to the needs of the patients, education and necessary measures should be taken to empower and increase their social competence.

G-1975

A review of enzymes used in prevention and treatment in military medicine

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Introduction: Enzymes are protein biocatalysts with high molecular weight, whose use has become widespread with the aim of taking care of people's health, especially in the field of military medicine. Their effective use in the military field, especially in the treatment of traumas, burns, and prevention as a protector and decomposition of organophosphorus compounds has turned them into a special and powerful tool that can be more effective compared to other methods and chemicals.

Method & material: The research conducted in the last decade on the role of enzymes in prevention and treatment in the field of military medicine is collected and studied, and we summarize and discuss them in the form of a review article.

Result: Burns caused on the skin due to traumatic factors among soldiers can be quickly repaired and treated with enzyme debridement methods using Collagenase, Papain-urea, Fibrinolysin, Bromelain.Also, in severe war bleeding trauma, by using α-N-acetyl galactosaminidase and α-galactosidas and converting A and B antigens into O antigen and creating a single blood group, the required blood products can be provided. in the field of treating neuro-spinal cord injuries of veterans, the use of Chondriotinase, which causes spinal cord regeneration by destroying chondroitin sulfate, and Hyaluronidase, which regenerates axons by destroying chondroitin sulfate, promises to restore the nervous system in traumatic injuries.Also, Histone deacetylase is one of the effective enzymes used to treat post-traumatic stress disorder. Organophosphorus hydrolase and Tergazyme can help in decontamination especially in military environments and increase the safety level of these places. Pectinase and Lacaz can be used to design protective clothing against harmful factors during military operations.

Conclusion: Now that the complex nature of military capabilities, the increase of terrorist groups and the possible use of nuclear weapons, it is necessary to develop prevention and treatment protocols to deal with such incidents. Because of this, researchers have been able to provide more effective drugs for treatment and new prevention methods, especially in the field of military medicine, by accurately identifying the role of enzymes and their effects on treatment. although the use of enzymes was initially investigated as a therapeutic method for injuries in the military population, recent studies in the field of physiology of military injuries show that some enzymes can be effective therapeutic methods for injuriestrauma in military personnel. currently, the effectiveness of these treatments is still a matter of debate, but we can hope that in the near future, significant advances in this field will provide the best treatment and prevention services to military personnel.

G-1977

Examining the knowledge, attitude and performance of nurses and emergency medical personnel of Ardabil University of Medical Sciences hospitals according to the latest guidelines (2020) for cardiopulmonary resuscitation

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Introduction: Sudden cardiac arrest is one of the main causes of death and an important health care problem, and acquiring and staying up-to-date with the latest instructions for cardiopulmonary resuscitation is one of the most important criteria of competence, considering the importance of this subject, the present study aims to investigate the knowledge, attitude and performance of nurses and emergency medical personnel. Cardiopulmonary resuscitation has been performed since the last directive (2020).

Method & material: In this descriptive study, 360 nurses and medical emergency personnel were included in the study by random sampling. Data collection was done using a questionnaire that included the demographic characteristics of the participants and questions related to knowledge, attitude and performance. SPSS software and descriptive statistics tests, Pearson's correlation coefficient, ANOVA and t-test were used for data analysis.

Result: In the present study, 176 women (48.9%) and 184 men (51.1%) participated. The total average level of knowledge was 15.42 ± 4.07, attitude level 45.75 ± 8.73, and performance level 65. 95.18 ± 16 was obtained; A significant difference was observed between the averages of knowledge, attitude and performance based on gender, and the average was higher in men than women (P0.05)

Conclusion: In the present study, the knowledge of health personnel in relation to the latest guidelines for cardiopulmonary resuscitation required a significant amount of attention, so that continuous updating and training of these changes seems mandatory. Also, the average knowledge level of men was higher than that of women.

G-1978

The role of robots in tackling Covid-19 pandemic: a systematic review

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Introduction: The outbreak of the COVID-19 pandemic created a huge demand for healthcare equipment, medicines along with the requirement for advanced robotics and artificial intelligence-based applications. Today, with the advancements in Robotics and AI, robots have the potential to support and assist humans in a variety of environments. One application of robots is in healthcare and this is not a new concept. Emerging technologies that have played an effective role during pandemics have helped to reduce the workload of frontline workers. Therefore, this study investigates the role of robots and their applications in dealing with the COVID-19 pandemic.

Method & material: The systematic review protocol followed the Preferred Reporting Items for Systematic-Reviews and Meta-Analyses(PRISMA) guidelines. An extensive search was conducted in online databases including PubMed, ISI, Scopus, GoogleScholar and ScienceDirect with the keywords suchas "Robot","Robotics","COVID-19","Covid-19 robotics" and their equivalent words from the earliest records up to June 2023. All original English articles related to the purpose of the present study were included in the study. Letters to the editor, opinions, conference abstracts and reviews were excluded from this study. The appraisal tool for cross-sectional studies was used to assess the quality of included studies. All stages of search and quality evaluation of articles were conducted by two researchers independently.

Result: 27 out of 209 studies were included in the study. Various roles include Disinfection(n=14), Telehealthcare services(n=11), and Spreading awareness about threats of COVID-19(n=7). Robots also played a significant role in Delivery and supply chain during COVID-19(n=6) and Drug research and development during the Covid-19 pandemic(n=5). In addition to that, during the pandemic, most surgical robots offer huge advantages, as they can be deployed to perform complex surgeries on COVID-19 affected patients and also reduce the excessive burden of the healthcare professionals

Conclusion: Many challenges in the management of COVID-19 have been caused by the unexpectedly and widespread impact of the pandemic. Robotic applications are of paramount importance in such situations, because by replicating human actions in unsafe environments, they ensure safety and improve efficiency. Although robots have great potential to meet various needs During epidemics, the high cost of robots means they will be accessible only to the wealthiest hospitals and cities, where only a small fraction of people can benefit. On the other hand security and privacy should also be considered when deploying these technologies. However It is expected that the discussed robotics technologies will significantly assist humankind in combating the pandemics and future disasters that may arise.

G-1980

The compliance level of antibiotics used in Tabriz Sina Hospital Burn Centre with standard guidelines

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Introduction: Burn injuries can cause extensive deep wounds and even death, with infection being the primary cause of patient mortality, accounting for nearly 51% of burn-related deaths. Without proper treatment, wounds can progress towards sepsis and death.Standard protocols should be followed when administering topical and systemic antibiotics to combat infections in burn patients.
This article evaluates the conformity of antibiotics used in burn patients at Sina Hospital with standard guidelines.
Method & material: To compare the antibiotics used in burn patients at Sina Hospital in Tabriz with standard guidelines, Random samples were collected from patients hospitalized in the burn units for at least 48 hours between January 2020 to January 2021. Age and gender were not factors in selecting the patients.
The data was collected by a questionnaire that contained demographic information, underlying diseases, percentage and type of burn, laboratory tests, medications received, urinary output, and a checklist following standard infection control guidelines. The collected data was analyzed using SPSS software version 18 both descriptively and analytically.
Result: The analysis comprised 344 patients, and the charts below exhibit the corresponding findings.
Conclusion: Infections are a dangerous complication for burn patients, causing 73% of burn-related deaths in Iran. Antibiotics are the primary method for combating infections. The proper use of antibiotics involves selecting the right type, administering them appropriately, ensuring appropriate dosage, cost-effectiveness, and patient safety avoid bacterial resistance and additional costs. Improving the functional status of systemic antibiotics can help reduce mortality rates, and prevent antibiotic resistance among burn patients.

G-1982

Investigation of 5-year survival of patients with breast cancer and its related factors

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Introduction: Breast cancer is the most common cancer among women all over the world and includes 16% of all cancers in Iran. Hence, Survival time for breast cancer is considered as one of the major criteria for controlling the disease and measuring the effectiveness of treatments. Survival time indicates those patients who live for a specific period of time after diagnosis.

Method & material: A retrospective study was conducted with the aim of investigating a 5-year survival and its related factors in patients with breast cancer. In this research, the intended information of all patients (2508) with breast cancer, who were referred to Omid Hospital of Mashhad and also Reza Radiotherapy Oncology Center during 2001-2013, was reviewed. Firstly, the univariate Cox regression was fitted for each variable and then multivariate Cox regression was fitted for significant variables. Finally, the five-year survival curve was plotted for all significant variables in the multivariate Cox regression.

Result: 5-year survival in this study was 67% and since it was above 50% the median survival was not calculated for patients. Instead, the 75th percentile was computed that was 47 with a standard error of 2.11. Moreover, some variables including subtype of breast cancer, age, marital status, race, stages of breast cancer and Cancer antigen (CA 15-3) were identified as influencing factors on survival in the multivariate Cox regression.

Conclusion: According to the results of this study and the patients' survival, breast cancer diagnosis at an early age and in the early stages of the cancer by using screening methods for high-risk individuals seems to be necessary in order to prolong the survival time.

G-1983

Assessing the effect of Hydroxychloroquine and Azithromycin on COVID 19 Morbidity with and without Arrhythmia

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Introduction: Over the past decade, systemic inflammation has been shown to promote a wide spectrum of cardiac arrhythmias, particularly atrial fibrillation, long- QT syndrome. In the initial phases of the pandemic, it was thought that COVID-19- associated arrhythmias mostly resulted from disease- specific mechanisms, such as cardiac injury due to direct viral invasion, or electrophysiological effects of repurposed drugs. This retrospective study aims to evaluate the morbidity rate in COVID-19 patients with and without arrhythmia who were treated with hydroxychloroquine or azithromycin and also the to assess and compare the inflammatory factors between these groups.

Method & material: This retrospective study analyzed data from medical records of 140 patients with
COVID-19 infection who were treated with hydroxychloroquine or azithromycin or both of them between February 19, 2020, to April 15, 2020. The patients were divided into two groups based on the presence or absence of arrhythmia. The morbidity rate was compared between the two groups using statistical analysis. Cardiac arrhythmia was diagnosed in 70 patients by presenting a new method and using digital ECG images. The variables of blood and inflammatory factors, and the use of drugs were determined in two groups of covid-19 patients with arrhythmia and those without.

Result: 72 if patients had arrhythmia and 68 did not. Among the dead patients with arrhythmia, 20% received hydroxychloroquine and 17.85 received azithromycin and about 16.7% used both of the drugs. Among the dead patients without arrhythmia 8.19% received hydroxychloroquine and 10.59% received azithromycin. In the arrhythmia group, the morbidity rate was 11.59% and the morbidity rate in the non-arrhythmia group was 8.69%. Also, the inflammatory factors as ESR, CRP, in these patients are significantly P0.001 more than those of covid-19 patients without arrhythmia.

Conclusion: This study found that the percent use of hydroxychloroquine or azithromycin in patients with arrhythmia were more than without arrhythmia. Moreover, the inflammatory factors and homeostasis of Na and K ions were irregular in these patients. The findings suggest that hydroxychloroquine and azithromycin may worsen the arrhythmia in the COVID-19, and further research is needed to identify more effective therapies.

G-1984

The effect of curcumin and nano-curcumin supplementation on gene expression and serum levels of some inflammatory factors and clinical symptoms of patients hospitalized with COVID-19: A systematic review

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Introduction: Curcumin is an active polyphenol that has shown many health-related benefits and gene expression and Anti-inflammatory effects. Adjuvant curcumin therapy for COVID-19 has become increasingly proposed, but its efficacy is still controversial. The purpose of this study is to evaluate the efficacy of adjuvant curcumin in different doses of therapy in COVID-19.

Method & material: Scientific reports were searched on the PubMed and Scopus websites from October 1, 2020, to January 31, 2022. These studies included data from patients treated with curcumin and nano-curcumin supplementation.

Result: One hundred and eighty-six studies on COVID-19 and curcumin were identified. Seventeen relative publications were eligible for systematic review. Finally, after applying the inclusion and exclusion criteria, 6 clinical trials and randomized clinical trials were found and the following results were obtained from patients with COVID-19 who received doses of 240 mg/day or less of curcumin and nano-curcumin supplement: O2 saturation was significantly higher in patients who received nano-curcumin supplements ($p = 0.02$) Moreover, expressions of TBX21 ($p = 0.02$) and FOXP3 ($p = 0.005$) genes were significantly decreased and increased respectively. All symptoms except sore throat resolved faster in the treatment group and the difference was significant for chills, cough, smell and taste disturbances. (p 0.05) Serum CRP levels decreased significantly in the intervention group (p 0.05) and the number of lymphocytes and neutrophil cells in the intervention group increased significantly (p 0.05). After treatment with Nano-curcumin, a

Conclusion: According to the findings of this review, the evidence demonstrated that curcumin and nano-curcumin could be implicated as complimentary medications to act as an anti-inflammatory factor and inhibit inflammatory complications. As nano-curcumin can be effective in increasing O2 saturation and reducing the severity of symptoms in COVID-19 patients, it can be concluded that, it could probably be used as a complementary factor to accelerate the recovery of patients. Further studies with a larger sample size are recommended.

G-1985

The effect of oral and intravenous melatonin supplementation on hospitalized patients with Covid-19: A systematic review

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Introduction: Melatonin is a hormone created by the pineal gland that plays a pivotal role in maintaining circadian rhythm homeostasis. Recently, the strong antioxidant and anti-inflammatory properties of melatonin have attracted the attention of researchers. The main purpose of this systematic review is to investigate the effect of oral and intravenous melatonin supplementation on hospitalized patients suffering from COVID-19.

Method & material: Scientific reports were searched on the PubMed website from August 1, 2020, to January 31, 2022. These studies included data from patients treated with oral and intravenous melatonin supplementation.

Result: One hundred and sixty-three studies on COVID-19 and melatonin were identified. Finally, after applying the inclusion and exclusion criteria, 5 clinical trials and randomized clinical trials were found on oral and intravenous melatonin supplementation in patients admitted to the hospital with Covid-19.

Thrombosis and sepsis developed significantly less frequently (P 0.05), while mortality was significantly higher in the control group (P 0.05).

Also, blood oxygen saturation and clinical symptoms such as cough, dyspnea, fatigue, and pulmonary involvement had significantly improved (p 0.05).

The mean time of hospital discharge of patients and return to baseline health was significantly shorter (p 0.05).

Primary outcomes such as clinical symptoms as well as inflammatory parameters of serum, including reactive protein C (CRP), tumor necrosis factor-alpha (TNF-α), interleukin-1β (IL-1β), and IL-6 were improved.

Conclusion: According to the findings of this review, adjuvant use of melatonin may help to reduce thrombosis, sepsis, and mortality in COVID-19 patients.

Outcomes showed that the combination of oral melatonin tablets and standard treatment could substantially improve sleep quality and blood oxygen saturation in hospitalized COVID-19 patients.

Also, the adjuvant use of melatonin has the potential to improve clinical symptoms and inflammatory factors of COVID-19 patients and contribute to a faster return of patients to baseline health.

G-1986

The therapeutic effect of high-dose vitamin D3 supplementation on hospitalized patients with COVID-19: A systematic review

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Introduction: The study aims to review the current literature on the influence and importance of high-dose vitamin D3 supplementation on hospitalized patients during COVID-19 infection.

Method & material: Scientific reports were searched on the PubMed website from 1 October, 2020, to 31 May, 2022. These studies included data from patients treated with high-dose vitamin D3 supplementation. The following keywords and combinations were used: COVID-19, Calcifediol, vitamin D3. Relevant data from studies meeting inclusion and exclusion criteria were extracted and analyzed.

Result: 73 studies on COVID-19 and vitamin D3 were identified, however, 7 relative publications were eligible for systematic review. Finally, 5 reports were clinical assessments of high-dose vitamin D3 supplementation on hospitalized patients suffering from COVID-19.

The findings do not support the use of a single dose of 200,000 IU vitamin D3 for the improvement of the cytokines, chemokines, and growth factors in hospitalized patients with moderate to severe COVID-19.

Among hospitalized patients with COVID-19, a single high dose of vitamin D3 did not significantly reduce hospital length of stay.

A high dose of Calcifediol or 25-hydroxyvitamin D, the primary metabolite of the vitamin D3 endocrine system, significantly reduced the need for ICU treatment of patients requiring hospitalization due to proven COVID-19.

Conclusion: According to the findings of this review, high-dose vitamin D3 supplementation may appear to reduce the severity of the COVID-19, but larger trials with properly matched groups are needed to show a definitive response to the use of a single high-dose vitamin D3 supplementation.

G-1987

The relationship between social adequacy and adherence to treatment and factors affecting it in cardiovascular patients discharged from medical training centers

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Introduction: Cardiovascular diseases are one of the most common chronic diseases and one of the causes of disability in affected people. This category of diseases affects the clients by disrupting the functioning of social, family and work relationships. On the other hand, adherence to treatment is one of the most effective ways to prevent complications and progression of cardiovascular diseases, which are affected by various factors. Takes. Therefore, this study was conducted with the aim of determining the relationship between social sufficiency and adherence to treatment and its influencing factors in discharged cardiovascular patients.

Method & material: In this descriptive analytical correlation study, 270 cardiovascular patients discharged from Imam Khomeini (RA) Ardabil Medical Education Center in 1400 were selected by stratified random method. The data collection tools included the social adequacy questionnaires of Flenner and compliance with Madanlo's treatment in addition to the demographic questionnaires which were completed by the samples. The data were analyzed using spss software and descriptive (frequency, mean, percentage and standard deviation) and inferential (correlation) statistical methods.

Result: According to the obtained results, the variable of social sufficiency had a significant relationship with adherence to treatment (R=0.677, P0.05). Also, between the dimensions of cognitive skills (P0.05, R=0.370), behavior (P0.05, R=0.663), emotional sufficiency (P0.05, R=0.503) and attitude Motivational values (P0.05, R=0.449) were observed to have a significant relationship with treatment compliance. Among the demographic characteristics, blood lipid level (R=0.131, P0.05), drug control by family (R=0.131, P0.05) and education level (R=0.131, P0.05) R=0) had a significant relationship with the level of social adequacy.

Conclusion: Considering the significant relationship between the four dimensions of social competence and compliance with treatment in discharged patients, it is suggested that the social competence of patients at the time of discharge should be evaluated and according to the needs of the patients, education and necessary measures should be taken to empower and increase their social competence.

G-1988

Evaluation and diagnosis of multiple sclerosis using retinal images with the help of artificial intelligence

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Introduction: Multiple sclerosis (MS) is a common autoimmune and inflammatory disorder that causes demyelination and neuronal changes in the central nervous system (CNS). The eye is one of the organs of the body that is affected by MS, especially the layers of the retina and the optic nerve, which are affected. Optical coherence tomography (OCT) images can play a key role in the preliminary stages. After analyzing the images, artificial intelligence can automatically diagnose MS in the early stages.

Method & material: In total, about a thousand images of the retina of sick people and healthy people were included in this study, and the OCT images of the retina were taken without noise, and then using data augmentation, artificial intelligence and neural networks were trained with the images taken. Finally, the automatic detection algorithm of MS disease was implemented in Python, and then the diagram of retinal loss processes was drawn and the sensitivity, specificity and accuracy of the algorithm were evaluated.

Result: The disease was successfully diagnosed by OCT images with an accuracy of 93.0, a sensitivity of 96.47, and a specificity of 90.44

Conclusion: The proposed method showed improvements in early-stage MS diagnosis and with the potentiality to be used in either the diagnosis or prediction of the progression of other diseases that affect the CNS (e.g. Alzheimer's disease, bipolar disorder, etc.).

G-1990

Spiroisatin pyranopyrimide derivatives as targeted anticancer agents

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Introduction: Cancer is known as a major health burden for modern human societies, being the first or second common cause of death worldwide. In recent years, many considerable signs of progress have emerged in cancer therapeutic strategies, especially in molecularly targeted agents. Receptor tyrosine kinases (RTKs) play critical roles in the progression of cancer, known as excellent targets for molecular therapies.

Method & material: In this study, a new set of spiro pyrano pyrimidine derivatives, containing 13 individual compounds (B1-B13), were synthesized and assessed for their kinase inhibitory and anticancer effects. The antiproliferative activity of the synthesized derivatives was evaluated by MTT assay. Cell cycle alteration induced by the most potent derivatives were assessed by RNase/PI flow cytometric assay at 25 and 50 µM concentrations in EBC-1 cells. Furthermore, derivatives were assessed for their apoptosis induction ability, using PI/Annexin V flow cytometric assay in EBC-1 cells at 50 µM concentration. Additionally, the kinase inhibitory activity of the most potent derivatives was examined against 31 protein kinases at 25 µM.

Result: Derivatives B6, B8, B10, and B12 showed the highest antiproliferative activity against cancer cells based on their IC50 values. Moreover, derivatives B6, B8, and B12 induced cell cycle arrest in the G2/M phase in EBC-1 cells. These derivatives, especially B6, also significantly increased apoptotic cells. B10 revealed the highest kinase targeting activity and inhibited AXL, FLT4 and KDR kinases by 43%, 37% and 36%, respectively, at 25 µM.

Conclusion: This study has shown the anticancer potential of spiro pyrano pyrimidine derivatives. These compounds hold promise for further investigation and development as therapeutics agents.

G-1991

Aging Modulates Oxidative Stress and Apoptosis by Alteration in Sirt1/Nrf2 Signaling Pathway in the Heart of Aged Male Rats; Rescue Effect of Prazosin

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Introduction: Myocardial apoptosis is a significant contributor to the damage of heart tissue in aging. However, the underlying molecular mechanisms are not well understood. The goal of this study is to investigate how aging and Prazosin treatment affect the Sirt1/Nrf2 signaling pathway in the heart of male rats.

Method & material: Twenty-one male Wistar rats with a weight range of 220±10 grams were selected. They were divided into three groups (n=7): a control group of young rats; a group of aged ones; and a group of aged rats that had received an intraperitoneal injection of prazosin at a dose of 1 mg/kg. At the end of the experiment, serum levels of malondialdehyde (MDA), superoxide dismutase (SOD), lactate dehydrogenase (LDH) and CK-MB enzymes were measured by calorimetry. In addition, the expression of Bax and Bcl-2 proteins were measured by western blotting.

Result: Serum levels of MDA increased and SOD activity decreased along with an up-regulation of LDH and CK-MB enzymes activity in hearts of aged male rats compared to the control group. TUNEL staining indicated that aging increased the number of apoptotic cells in the hearts of male rats. An increase in the expression of Bax and a decrease in the expression of Bcl-2 was observed in the hearts of aged male rats. This was accompanied by an up-regulation of the Bax/Bcl-2 ratio and cytochrome c level, as well as alterations in Sirt1 and Nrf2 protein levels.

Conclusion: As a whole, our findings indicate that aging can cause damage to heart tissue through oxidative stress and mitochondrial apoptotic pathways possibly by Sirt1/Nrf2 signaling pathway. It also demonstrates that Prazosin treatment can act as an antioxidant and anti-apoptotic agent, which can help in minimizing the adverse effects of aging.

G-1992

Novel spiroindoline quinazolinedione derivatives as anticancer agents and potential FLT3 kinase inhibitors

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Introduction: Despite considerable recent progress in therapeutic strategies, cancer still remains one of the leading causes of death. Molecularly targeted therapies, in particular those focused on blocking receptor tyrosine kinases (RTKs) have produced promising outcomes in recent years.

Method & material: In this study, a new series of spiro[indoline-3,2'-quinazoline]-2,4'(3'H)-dione derivatives (5a-5l) were synthesized and evaluated as potential kinase inhibitors with anticancer effects. The anti-proliferative activity was measured by MTT assay, while the cell cycle was studied using flow cytometry. Moreover, kinase inhibition profiles of the most promising compounds were assessed against a panel of 25 main oncogenic kinases.

Result: The results showed that compounds 5f, 5g, 5i, and 5j showed anti-proliferative activity in EBC-1, A549, and HT-29 solid tumor models in addition to leukemia cell line K562, in which compound 5f displayed particularly potent activity with IC50 values of 2.4 to 13.4 µM. The most potent derivatives also altered the distribution of cells in different phases of cell cycle and increased the sub-G1 phase cells in K562 cells. Moreover, kinase inhibition assays identified FLT3 kinase was as the primary target of these derivatives. Compound 5f at 25 µM concentration showed inhibitory activities of 55% and 62% against wild-type FLT3 and its mutant, D835Y, respectively. Finally, the docking and simulation studies revealed the important interactions of compound 5f with wild type and mutant FLT3.

Conclusion: The results of this study showed that some novel spiroindoline quinazolinedione compounds could be potential candidates for further development as novel targeted anticancer agents.

G-1994

Investigating the kinetics of Arbutin hydrolysis and the possibility of its interference in the Pharmacopeial methods of determining the value of hydroquinone in topical products based on USP

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Introduction: Arbutin is a glycosylated hydrocarbon obtained from the Arctostaphylos uva-ursi and is used in skin lightening products. This substance is hydrolyzed and converted into hydroquinone in the hydrolytic stress environment, including acidic environments, which makes it difficult to measure this substance in pharmaceutical and cosmetic products. The aim of this study is to investigate the kinetics of conversion of arbutin to hydroquinone under temperature and acidity conditions by using the appropriate HPLC method.

Method & material: First, hydrolytic stress conditions were optimized by screening method. The concentrations prepared with standard arbutin powder were kept at acidic pH at 50°C, and then the amount of remaining drug and degradation products including hydroquinone and benzoquinone were determined by HPLC method and fitted to well-known kinetic models. The possibility of interference of arbutin in hydroquinone assay test with USP pharmacopoeia method was investigated by preparing standard concentrations of arbutin and hydroquinone by UV method.

Result: Based on the calculations obtained from HPLC analysis for all 3 drugs, hydroquinone, arbutin and benzoquinone, the appropriate system was valid and stable. The hydrolytic degradation of arbutin in acidic stress environment followed zero-order kinetics. The interference of arbutin was observed in the USP Pharmacopoeia UV method of measuring hydroquinone in topical products.

Conclusion: Acidic hydrolytic degradation of arbutin led to the formation of two substances, hydroquinone and benzoquinone. In this study, a simple method with isocratic method and UV detection was obtained in the simultaneous measurement of three drugs, hydroquinone, arbutin and benzoquinone. The use of the mentioned method was confirmed as a method of confirming stability in defined stress conditions. The kinetics of acid hydrolysis of arbutin is independent of the initial concentration. The interference of the presence of arbutin in the UV test of hydroquinone, especially in medicated creams, cosmetics containing both substances, should be considered.

G-1995

Economic burden of Venous thromboembolism in Iran

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Introduction: Venous thromboembolism (VTE) is the third most common vascular disease after coronary artery disease and stroke, which is experienced by two to five per cent of people during their lifetime. Thromboembolism is a well-known problem that is associated with significant complications and deaths. This disease is an important cause of mortality in a hospital that is largely preventable. Deep vein thrombosis (DVT) and pulmonary embolism (PE), commonly referred to as venous thromboembolism (VTE), impose a heavy burden on countries' health care systems.

Method & material: This study is a retrospective-descriptive analysis that was conducted on 300 patients with thromboembolism in Hazrat Rasul Hospital of Tehran and Dr. Shariati and Imam Reza Hospital of Mashhad in 2022. The costing approach was from the bottom up and the community study perspective. The data were described with the mean and standard deviation and were analyzed based on the reported percentage and also by SPSS_11 software. Inclusion criteria included patients whose information was fully recorded at all stages of treatment. Exclusion criteria included patients who did not develop venous thromboembolism and were unable or unwilling to answer the questions. All hospital-related costs associated with treatment of venous thromboembolism were included in the analysis. In this study, a researcher-made questionnaire was used as a tool to collect data to calculate direct non-medical costs and indirect costs.

Result: According to the findings, the average age of all patients was 66 years and 41% of the patients were male. The highest and lowest diagnostic costs were $787.4 for laboratory tests and $77.72 for ECG, respectively. The total direct medical cost of each patient was $5249.49 with an average of $9.55 and the cost of a doctor's visit included 29% of the total costs. Direct medical and non-medical costs were $5249.49 and $744.76, respectively. The indirect cost per patient in one year is equal to $273.73 .

Conclusion: According to the findings of this study, the economic burden of venous thromboembolism is $6267.98 per patient in the study sample. Prevention of this disease can significantly reduce the costs imposed on the health system.

G-1998

Common non-invasive methods in the prevention of dental caries in children: a systematic review

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Introduction: Tooth decay is the most common chronic childhood disease and an infectious and multifactorial disease. Due to the high prevalence of tooth decay, the high costs of treatment and the complications of decayed teeth, including the negative impact on nutrition, sleep, and in general, the child's growth and development, it is necessary to pay attention to preventive measures; Therefore, this systematic review was conducted with the aim of evaluating the effectiveness of common non-invasive methods in preventing tooth decay in children.

Method & material: A systematic search was conducted in the Scopus, PubMed, Web of Science, OVID, Springer and Google Scholar using the keywords Caries , Decay , Prevention and Non-Invasive Care Effectiveness in the period from 2000 to 2022. Inclusion criteria included systematic review articles, systematic review and meta-analysis, and clinical trials published in English that were studied in the age group of people under 12 years old. The exclusion criteria also included not knowing the time and place and demographic information of the people under study, proposals, animal studies, letters to the editor, summaries of articles presented in conferences, short reports, lack of access to the full text of the article and non-English articles. PRISMA checklist was used to evaluate the article.

Result: Among the 904 articles retrieved in the initial review, 46 articles were included in the study based on the inclusion and exclusion criteria. Based on the results, 16 studies reported the effectiveness of sealant, 13 studies the effectiveness of varnish and fluoride varnish, and 5 studies reported the effectiveness of fluoride on tooth decay. The effectiveness of health education and the impact of parents' awareness and family behaviors were also reported in 3 studies. Other studies showed that brushing, brief conversation (Dental RECUR), adopting a multifaceted approach (including educational booklet, fluoride varnish and frequent follow-ups) and dental hygiene practices can be effective in preventing tooth decay.

Conclusion: Using a caries reduction method cannot help in preventing dental caries. Caries should be considered as a multifaceted factor and according to the condition of the patient and the type of caries, different methods should be used along with education about caries to the patient's parents.

G-1999

A novel EDA variant causing X-linked anhypohidrotic ectodermal dysplasia:Case report

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Introduction: Ectodermal dysplasia (ED) is a rare hereditary disorder affecting the development or function of two or more ectodermal derivatives, including teeth, hair, nails, and sweat glands. It is defined by the triad of signs, which consist of abnormal or missing teeth (anodontia or hypodontia), sparse hair (atrichosis or hypotrichosis), and inability to sweat because of the absence of sweat glands (anhidrosis or hypohidrosis). Their vast clinical inconsistency and their etiological heterogeneity may lead to complications for the establishment of a syndromic diagnosis. The estimated incidence of ED is about seven cases per 100,000 people, and more than 150 distinct varieties have been documented in ClinVar. In the study, we aim to report a clinical characteristic of a patient affected by EDA: caring deletion at exon 2 in EDA on ChrX.

Method & material: Case presentation: A 12-month-old boy was referred to Bou-Ali Children's Hospital with complaints of fever, cough, dyspnea, and lethargy. On clinical examination, he has sparse hair, conical teeth, scanty eyebrows, and low-set and overfolding ears. He had a history of recurrent hospitalization episodes (4 times) due to lobar pneumonia treated with IV antibiotics without abscess formation or effusion.

Result: -

Conclusion: Based on history, clinical features, biopsy, and genetic study, ED was diagnosed with hemizygous deletion, while his parents do not have this deletion. Molecular genetic analysis of whole exome sequencing (WES) and Sanger sequencing demonstrates hemizygous deletion of exon 2 in EDA on ChrX: 69176876-69176977.

G-2001

Bioinformatics Analysis of Prognostic Value of MAP4 as Novel Key Gene in Breast Cancer

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Introduction: mong females, breast cancer (BC) is the most commonly diagnosed cancer and the leading cause of cancer deaths. The high incidence and mortality of female BC remain a global health challenge. Therefore, an urgent need is to develop effective prognostic models for predicting the overall survival (OS) in patients with BC and guiding clinical practice. The protein encoded by MAP4 is a major non-neuronal microtubule-associated protein. This protein contains a domain similar to the microtubule-binding domains of neuronal microtubule-associated protein (MAP2) and microtubule-associated protein tau (MAPT/TAU). In vitro, MAP4 promotes MT assembly and stabilization. Moreover, MAP4 is involved in some physiological processes such as cilia formation, myotube organization, cell division context, controlling the assembly of the mitotic spindle, and the orientation of the centrosome. We aim to investigate the role of the MAP4 gene as a novel key gene in BC and its effects on tumorigenesis and patients' survival.

Method & material: In the GEO database, GEO2R was used to analyze the differentially expressed genes from the 3 databases: GSE139038, GSE124646, and GSE45827 including 181 BC tissues and 39 normal breast tissues. Then Differentially expressed genes (DEGs) were screened out based on these three datasets. The Enrichr website was used to perform Gene Ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) analyses. These protein–protein interaction (PPI) networks of DEGS were visualized and analyzed using the STRING website and the hub genes were further screened using the MCODE plugin. Lastly, the functions of the CENPE were further analyzed by Gene Expression Profiling Interactive Analysis (GEPIA) and UALCAN online tools. Furthermore, the miRDB database was used to investigate microRNA targeting MFAP4 and effects on its function. We also assessed the expression levels of MFAP4 by Real-time PCR.

Result: We found that MAP4 is considered as a novel hub gene and its' expression was significantly down-regulated in all histological classifications of breast cancer as well as tumor samples compared to normal tissue. We also have found that the decreased MAP4 expression correlated with worse relapse-free survival and overall survival. miRDB database analysis showed that miR-651, miR-494-3p, miR-3148 and miR-570-3p are the microRNA targeting MAP4 with highest score.

Conclusion: Therefore, the present study can shed new light on the understanding of molecular mechanisms of BC and provide MAP4 as a molecular target and diagnostic biomarker for the treatment and early diagnosis of breast cancer. More in-depth experiments and clinical trials are needed to validate the value of MAP4 in breast cancer treatment.

G-2002

Teaching patients by distance nursing (telenursing)

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Introduction: Remote nursing, or telenursing, refers to the provision of nursing services through communication technology. This communication technology can be used through telephone, computer, and internet communication tools and short service. Telenursing leads to an increase in communication between the nurse and the patient and leads to the provision of services to the patient regardless of time and place. Teaching the patient and taking care of him is one of the most basic roles of every nurse, which can have a significant impact on the prevention and treatment of many diseases. The purpose of this review study is to describe distance nursing education.

Method & material: This research is a review study that was conducted by searching the databases Scopus, PubMed, Science Direct, and Google Scholar and using the keywords Education, Training, Telenursing, and Telehealth Nursing in the last three years (2020–2023).

Result: The studies conducted indicate that patient education is done through mobile phone and online conversation, computer and mobile phone applications, and short service. Training through telenursing leads to a reduction in the consequences of the disease of patients who live in areas far from access to medical centers, such as villages and elderly patients, immobile patients, patients with chronic diseases such as cancer, chronic obstructive pulmonary disease, heart and cerebral strokes, blood pressure, diabetes, asthma, chronic neurological disorders (Alzheimer's, Parkinson's, etc.), and increases the self-efficacy of patients. In this way, a large amount of content can be transferred to patients in a limited time. In this way, training saves time and costs, reduces the care pressure of patient caregivers, increases the quality of life of patients, reduces anxiety, increases independence, and creates satisfaction in patients.

Conclusion: Many home care problems arise due to the lack of necessary knowledge and skills related to self-care in the areas of health, nutrition, and lifestyle, as well as remote nursing in home health care education, especially in rural areas. Teaching care to cancer patients, the elderly, and patients with chronic ailments is extremely valuable. It also provides nursing education to patients without time or place restrictions. In addition, it also supports the standardization of nursing clinical education. Telenursing provides an opportunity to continue and improve the education process. It is recommended that the training of patients in the telenursing method be part of the care plan after the patients' discharge.

G-2005

Bioinformatic analysis of the expression and prognostic value of CENPE in human breast cancer

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Introduction: The high incidence and mortality of female BC remain a global health challenge. Despite new advancements in therapeutic strategies in recent years, the treatment of BC has become more effective, and the mortality rate of BC has been significantly reduced. However, the recurrence, metastasis, and rapid dissemination of BC have not been completely controlled and have become a huge obstacle in clinical therapy. The expression level of a number of genes has been shown associated with breast cancer oncogenesis, metastasis, therapy response and prognosis of breast cancer . In the present study, we have used bioinformatics analysis to find new biomarkers in breast cancer and found a novel gene called centromere-associated protein E (CENP-E). CENP-E, a kinesin-like motor protein that accumulates during the G2 phase of the cell cycle, is involved in the establishment of stable kinetochore-microtubule attachment during metaphase, as well as the elongation of microtubule plus ends.

Method & material: In the GEO database, GEO2R was used to analyze the differentially expressed genes from the 3 databases: GSE139038, GSE124646, and GSE45827 including 181 BC tissues and 39 normal breast tissues. Then Differentially expressed genes (DEGs) were screened out based on these three datasets. The Enrichr website was used to perform Gene Ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) analyses. These protein–protein interaction (PPI) networks of DEGS were visualized and analyzed using the STRING website and the hub genes were further screened using the MCODE plugin. Lastly, the functions of the CENPE were further analyzed by Gene Expression Profiling Interactive Analysis (GEPIA) and UALCAN online tools. Furthermore, the miRDB database was used to investigate microRNA targeting CENPE and effects on its function. We also assessed the expression levels of CENPE by Real-time PCR.

Result: We found that CENPE is considered as a novel hub gene and its' expression was significantly up-regulated in all histological classifications of breast cancer as well as tumor samples compared to normal tissue. We also have found that the increased CENPE expression correlated with worse relapse-free survival and overall survival. miRDB database analysis showed that miR-4499 , miR-6753, miR-2053, let-7a, and miR-98 target CENPE with the highest scores.

Conclusion: A recent target for mitotic inhibition is CENP-E, which plays an essential role in transporting pole-proximal chromosomes to the spindle equator during prometaphase and also couples chromosome position to microtubule depolymerizing activity. Knockdown of CENP-E results in increased frequency of chromosome misalignment, lagging chromosomes and subsequent delayed mitotic progression in normal cells.

Hence, the present study has the potential to enhance our comprehension of the molecular pathways underlying breast cancer (BC), while also identifying CENP-E as a promising molecular target and diagnostic biomarker for the early detection and treatment of this disease.

G-2006

The effect of vegetables nitrate on blood sugar

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Introduction: The high prevalence of blood sugar among patients is a serious public health concern worldwide. Dietary nitrate is increasingly linked to a variety of beneficial health outcomes and plays a plethora of important roles in the human body. Vegetables are the major source of dietary nitrate, with wide variations in nitrate content. The aim of the present study was to explore the effects of dietary nitrate existing in vegetables on blood sugar.

Method & material: The systematic search was undertaken using online databases consisting of PubMed for all potentially relevant literature investigating the effect of vegetable nitrate on blood sugar without any restriction from incent up to 7 June 2023. the following search design was planned for the systematic search in titles and abstracts: Vegetable nitrate AND blood sugar , Nitrate AND vegetables , Nitrate AND blood sugar , Vegetable nitrate AND blood sugar , Dietary nitrate lowers blood sugar , Dietary nitrate AND blood sugar . Additionally, to find further eligible evidence and prevent missing relevant publications, the references list of included records and review articles and Google Scholar were hand searched. Among the findings, 10 articles were selected and analyzed.

Result: A total of 8 articles from 2018 to 2023 were included. 5 studies investigated associations between vegetable nitrate intake and blood sugar level; 3 of these studies resulted in NO plays a key role in the regulation of glucose uptake; and in contrast to our hypothesis, acute dietary NO3− ingestion did not attenuate the postprandial rise in blood glucose or insulin concentrations after ingestion of an oral glucose load in patients with type 2 diabetes mellitus; the dietary nitrate and metformin behave in the same manner in activating the AMPK pathway. Dietary nitrate also improves the functioning of mitochondria. Thus, all these factors may have contributed to the improvement of mitochondria and glucose utilization, leading to lower glucose levels in the blood. In conclusion, a single dose of NaNO3− does not improve subsequent oral glucose tolerance in patients with type 2 diabetes; and Blood glucose concentrations were 11% higher.

Conclusion: These findings show that dietary nitrate reduces blood glucose levels by improving mitochondrial function and increasing GLUT4 transport.

G-2007

Investigation of breast cancer risk factors in women referring to surgical clinics of Babol hospitals in 1390-1400

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Introduction: Breast cancer is the most common cancer diagnosed in women and the leading cause of cancer-related deaths in women worldwide. Despite the well-known risk factors of contracting it, no comprehensive study was found to investigate these factors in the north of Iran. Therefore, the aim of the present study is to investigate the risk factors related to breast cancer in women in northern Iran over a 10-year period.

Method & material: In this case-control study, we examined patients with breast cancer referred to the surgery clinic of Ayatollah Rouhani and Ayatollah Beheshti Hospitals during the years 2010 to 2014. The inclusion criteria for the study included all women of reproductive age (15-49 years) who had no history of surgery on the ovaries and menopause due to primary breast cancer and had at least 1 ovary if a hysterectomy was performed. be fixed Exclusion criteria included people's unwillingness to participate in the research, patient's death, and lack of access to patients' records. 131 people were in the case group and 131 people were in the control group. T-test and chi-square tests were used to compare the demographic characteristics between the two study groups. Patient information was collected through medical records, and face-to-face or telephone interviews. The data was analyzed with SPSS26.

Result: 262 participants were included in the study, 131 people (50%) were in the case group (breast cancer) and 131 people (50%) were in the control group. The average age of the participants was 98.56 ± 04.11 years. between the case and control groups in terms of age (P=0.289), height (P=0.254), weight (P=0.239), education level (P=0.785), employment status (P=0.661), marital status (P=0.421), place of birth (P=0.668) and place of residence (P=0.454) had no statistically significant difference.The presence of an underlying disease (P=0.015, OR=2.06), less physical activity (P=0.005, OR=0.4), older age at first delivery (P=0.008, OR=1.11), lower age of menstruation (P0.001) , OR=0.630) and history of breastfeeding for at least one year (P=0.005, OR=2.3) were significantly able to predict the incidence of breast cancer.

Conclusion: OCP use, underlying disease, less physical activity, older age at first delivery, younger age at menstruation, and history of breastfeeding for at least one year are associated with the incidence of breast cancer

G-2008

Recurrent Osteomyelitis in a patient with remained catheter from previous surgery! A Case Report.

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Introduction: Recurrent osteomyelitis of the vertebras is caused mostly by bacterial infections. The infection can either be directed to the vertebra or hematogenous from other parts of the body1. The hematogenous seeding of infection to the vertebras mostly occurs in patients with a background of immunodeficiency diseases, diabetes mellitus, long-term immunosuppressive medication and drug users. Antibiotics are the first line treatment for recurrent osteomyelitis but if the patient does not respond to medical therapies further survey is required to find the source of infection2,3.

Method & material: Case presentation:Patient is a 39-years old male who had a recurrent osteomyelitis of the vertebrae, and has received wide spectrum antibiotics for years in each relapse. On further past history questions, he expresses previous cerebral angiography several years ago. Therefore, a computed topography (CT) was ordered, which revealed a mass like lesion. An esophageal echo-cardiogram was performed for further investigation and remaining of angiography guide-wire catheter was detected. The catheter was detected from aorta to the inguinal artery. Excision of the guide-wire catheter was done. And on his ninth month follow up he did not have relapse of vertebral osteomyelitis.

Result: -

Conclusion: Early diagnosis of the source of recurrent osteomyelitis is crucial. Especially when multiple Antibiotic therapies fail. As described in our case left catheter in artery after angiography causing recurrent osteomyelitis is a rare accident that can not be thought of without a thorough medical history taking and some sense of suspicious. Recurrence of this condition after only medication therapy is doubtful and further investigation for finding the source of infection is necessary4. A good history taking, physical exam with imaging facilities can help us find the cause of vertebral osteomyelitis relapses.

G-2009

Evaluation of nursing student perceptions of an online course at Alborz University of Medical Sciences,2022

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Introduction: Online learning enables students to access online courses and information without time and geographic restrictions. Various reasons cause students to feel dissatisfied with online learning, these factors include insufficient support, instructor teaching, course structure, and educational materials. Student experiences in online learning are an important issue for universities. Therefore, this study was conducted with the aim of determining the score of nursing student perceptions of an online course at Alborz University of Medical Sciences,2022.

Method & material: This study is cross-sectional design that was conducted among undergraduate nursing students. The questionnaire included demographic information and the Persian version of the valid and reliable Student Perceptions of an Online Course (SPOC) scale. The SPOC contains 19 items in two subscales of course content and course format. Data were analyzed by SPSS software v.22.

Result: 302 second or above-semester students participated in this study. A majority of the participants were female (62.6%, n=189), single (85.8%, n=259) with an average age of 20±6 years and GPA at the end of semester 16.6±1.3. The score of the course content was 38.12±10.6 (12-60) and the course format score was 24.53±6.06 (7-35). Among the course content items the item "The instructor is supportive when a student had difficulties or questions" got the highest score (3.49±1.1) and the item "Learning activities in the course encourage students to explore diversity of interests" got the lowest score (2.81±1.1), also among the course format items the statement "All links (internal and external) are valid and active" and the statement "Learning content is logically sequenced" got the highest (3.75±1.1) and lowest (3.41±1.1) scores, respectively.

Conclusion: The findings of this study demonstrate that in order to increase students' satisfaction and enhance their perception and experience of online education, it is vital to strengthen good aspects while eliminating the disadvantages of online education. Nursing students may have a better understanding of online education as a result of improving factors related to the course components such as paying attention to each student's educational needs, fostering student-to-student interaction, relating the content and assignments to nursing fields as well as modifying things related to course format such as course design, its structure and the logical sequence of the content.

G-2010

Bladder Cancer in the Middle East and North Africa from 1990 to 2019: A systematic review

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Introduction: bladder cancer (BCa) is the tenth most common cancer in the world and one of the most common urological malignancies in the world. In this study, we intend to examine the epidemiological trend of bladder cancer in the Middle East and North Africa (MENA) countries from 1990 to 2019 in order to develop effective policies to reduce the incidence, mortality and consequences of bladder cancer.

Method & material: Prevalence, incidence, mortality and BCa DALY was calculated from 1990 to 2019 according to sex, age in 21 countries in the Middle East and North Africa with a population of nearly 400 million people based on data (GBD) Global Burden of Disease. The rates are standardized according to the total population of each region based on the latest census and detailed information in GBD. All estimates are 95% reliable due to various sources of error, including measurement, bias, and modeling errors.

Result: The DALY mean of BCa bladder cancer in 21 countries in the Middle East and North Africa (MENA) was 138.27 higher in men (167.57_115.57) than in women (38.64_ 26.99) per 32,000 people. In 2019 BCa, Lebanon has the highest incidence of 30.18 (23.02_40.4) and death of 19.14 (12.46_ 28.02) per 100,000 people, and the lowest incidence and mortality rate in Morako 4.28 (3.25_ 5.46) and Saudi Arabia 1.66 (1.34_ 2.05), respectively. Per 100,000 people among the countries of the region. The incidence of bladder cancer is 34% and the prevalence of bladder cancer has increased nearly 1.26 times between 1990 and 2019. The highest decrease in DALY from 1990 to 2019 is in Bahrain with 43% (144.99 to 82.20) and the highest increase is in Qatar with 27% (61.41 to 78.21). Smoking with 49% in men and 0.07% in women has the greatest impact on the DALY index in the

Conclusion: Considering the increasing in aging population and high smoking as the most important risk factors for bladder cancer and the consequent increase in the incidence and prevalence of bladder cancer in the region, screening programs need to be targeted to detect and prevent risk factors in a timely manner. Bladder cancer and the creation of high quality facilities for management in less developed and developing countries

G-2013

Epidemiology of tuberculosis in the Middle East and North Africa from 1990 to 2019

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Introduction: Tuberculosis is a tolerable and curable disease, but it causes more than a million deaths every year. Tuberculosis is an important problem in the North and North African region. Therefore, the aim of this study is to compare epidemiology in North and North Africa in order to formulate policies to reduce, mortality and consequences of this disease in the region.

Method & material: The studied population in MENA region countries includes 21 countries with a population of approximately 400 million people. A global database was used to calculate the number of TB cases, and modeling for each country is based on data availability and quality.

Result: From 1990 to 2019, the rate of tuberculosis has been decreasing in the countries of the MENA region. The highest percentage of changes in the rate of doli was reported in Turkey with a 91% decrease and the lowest rate of change was reported in Afghanistan with a 67% decrease. The highest incidence rate in 2019 in Afghanistan was 85.09 (98.46-73.69) and 79.51 (93.97-67.41) percent in Morocco. The lowest incidence rate is 4.83 (4.08-5.66) in Jordan and 6.58 (5.68-7.64) percent in Palestine respectively. The highest rate of TB-related doli was attributed to the risk factors of alcohol consumption, tobacco and high blood sugar. Tunisia, Lebanon and Qatar respectively have the highest number of Dalits due to the consumption of alcohol, tobacco and high blood sugar. In general, tobacco consumption has had the greatest impact on the Dali index in all countries of the region.

Conclusion: Agreed milestones and goals are not available globally and regionally. But reducing the consumption of alcohol and smoking can reduce the burden of the disease, as well as screening programs for early detection, targeting control and prevention programs of tuberculosis risk factors, especially in men, can reduce the burden of the disease

G-2015

Recent advances in MRI for early detection of ovarian cancer

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Introduction: Ovarian cancer is often diagnosed at advanced stages, leading to poor outcomes. There are many patients who are missed due to lack of timely diagnosis or are diagnosed when they are in their advanced and destructive stages and endanger the patient's life. Therefore, it is very important to find new diagnostic methods that allow accurate and early diagnosis of the disease.Due to the increasing importance and progress of the applications of MRI in various diagnostic and therapeutic aspects, the present systematic review was conducted to evaluate recent advances in MRI techniques for the early detection of ovarian cancer.

Method & material: A systematic review of studies published between January 2020 and September 2022 was conducted to evaluate MRI techniques for the early detection of ovarian cancer. PubMedwas searched for relevant studies. Studies were included if they evaluated MRI techniques for the early detection of ovarian cancer in humans.

Result: 216 studies met the inclusion criteria and were included in the systematic review. The studies evaluated a variety of MRI techniques, including diffusion-weighted imaging, dynamic contrast-enhanced MRI, and magnetic resonance spectroscopy. The studies also evaluated the use of MRI for differentiating between benign and malignant ovarian tumors, as well as for detecting early-stage ovarian cancer. The studies suggest that MRI has high sensitivity and specificity for the detection of ovarian cancer and can be used to differentiate between benign and malignant ovarian tumors. However, further research is needed to optimize the use of MRI for the early detection of ovarian cancer.

Conclusion: MRI techniques show promise for the early detection of ovarian cancer. MRI may have the potential to improve outcomes for women with ovarian cancer by enabling earlier diagnosis and treatment. Further research is needed to optimize the use of MRI for the early detection of ovarian cancer and to determine its role in clinical practice.

G-2016

Lung cavity lesions, a rare complication with important consequences in patients with covid-19

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Introduction: COVID-19 was appear in China at the end of 2019 and quickly spread to become a global pandemic in 2020. Risk factors for this disease include being male, being over 56 years old, and having underlying conditions such as diabetes, heart disease, and respiratory illness. COVID-19 symptoms and lung lesions are vary significantly from a person to another person. chest computerized tomography (CT) examination is very important in managing and Recognition of the lesions of COVID-19 patients. Cavitary lesions are unusual but important findings recorded in COVID-19 patients CT-scan. Cavitary lesions have been seen more frequently in non-infectious diseases such as malignancies and rheumatologic diseases (such as granulomatosis and Wegener's disease) as well as infectious diseases such as various bacterial causes. Our aim is to investigate the final consequences of cavitary lesions in the management of COVID-19 patients.

Method & material: This study is a retrospective cohort study that was conducted from March 2021 to February 2022 at Baqiyatallah Hospital in Tehran - Iran. According to the formula of comparing two sample sizes equal to 100 patients in each group, the patients were selected based on the CT scan report of the lungs at the Radiology Center of Baqiyatallah Hospital. Patients who tested positive for PCR were considered COVID-19 cases, and those with cavitary lesions were selected as the exposed group. An equal number of COVID-19 patients without cavitary lesions were selected as the unexposed group. The final outcomes of these two groups were extracted from patient files and analyzed. It should be noted that the selection of both groups will be done in a way that important confounding variables such as age and gender are similar or homogeneous

Result: The mean age of the participants was 54.13 ± 16.58 years, and the median hospital stay was 5.9 days. There was significant differences between two groups with and without Cavitary lesions in terms of age, gender, and history of receiving the COVID-19 vaccine (p 0.001). Actemra and remdesivir were more prescribed in the group of patients that have cavitary lesions, but dexamethasone was more used in the unexposed group. Moreover, the length of ICU stay was longer in the cavitary lesions group than the unexposed group.

Conclusion: The results obtained indicate that patients with cavitated lesions have experienced a greater disease progression, and there was a significant difference in terms of the recovery process compared to the group without lesions. Patients with lesions require a longer treatment duration and have poor prognosis.

G-2017

Clinical trials in the field of using MRI for early detection of lung cancer: A systematic review

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Introduction: Magnetic resonance imaging (MRI) is a promising technique for the early detection of lung cancer, but its efficacy and feasibility need to be assessed in clinical trials. This systematic review aims to summarize the available evidence from clinical trials on the use of MRI for the early detection of lung cancer.

Method & material:A systematic literature search was conducted using PubMed database from beginning to May 2023. Clinical trials that investigated the use of MRI for the early detection of lung cancer were included. The keyworks were ((Magnetic Resonance Imaging[Title/Abstract]) OR (MRI[Title/Abstract])) AND (lung cancer[Title/Abstract]) .

Result: A total of 104 clinical trials met the inclusion criteria. The trials varied in terms of the MRI techniques used, including dynamic contrast-enhanced MRI, diffusion-weighted MRI, and magnetic resonance spectroscopy. The trials also varied in terms of the patient populations and sample sizes. Overall, the trials suggest that MRI has high sensitivity and specificity for the early detection of lung cancer, particularly for small nodules and early-stage tumors. The use of advanced MRI techniques, such as radiomics and machine learning, has also shown promise in improving the accuracy of MRI for early lung cancer detection.

Conclusion: The available evidence from clinical trials supports the potential of MRI for the early detection of lung cancer, particularly for small nodules and early-stage tumors. The use of advanced MRI techniques, such as radiomics and machine learning, has the potential to further improve the accuracy of MRI for early lung cancer detection. However, further research is needed to validate these findings and to standardize MRI protocols for lung cancer detection.

G-2018

Reducing Environmental Impact of Anesthetic Gases: A Systematic Review

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Introduction: Anesthetic gases such as sevoflurane, desflurane, isoflurane, and nitrous oxide are widely used in dental clinics, veterinary medicine, and laboratory studies. These gases have a negligible 5% metabolic rate, with the remaining 95% easily entering the atmosphere and remaining unchanged for years. Halogenated anesthetics have a global warming potential (GWP) that may be up to 2000 times greater than CO2 emissions. The purpose of this systematic review is to explore solutions to reduce the environmental impact of anesthetic gases and promote sustainable and environmentally-friendly practices.

Method & material: A systematic literature search was conducted using Google Scholar, PubMed, and Scopus databases with keywords such as "carbon footprint", "hydrofluorocarbon", "greenhouse gases", "global warming", "green anesthesia", "environmental impact of anesthesia", and "anesthetic pollution". The search was not limited by publication date, after removing duplicates, a total of 20 articles were identified, with 14 being relevant for the systematic review.

Result: Studies show that halogenated anesthetics contribute to greenhouse gas emissions in healthcare facilities. The GWP effect of using 1.2% isoflurane for one hour in the operating room is equivalent to driving 14 kilometers. Replacing NO2 with other anesthetic gases and using total intravenous anesthesia (TIVA) can reduce global warming. Additionally, using spinal anesthesia or avoiding inhaled gases may also be effective

Conclusion: Nurse anesthetists play a critical role in minimizing unnecessary air pollution by adopting techniques that can reduce the adverse effects of anesthetic gases on the environment. Replacing NO2 with alternative anesthetic gases, such as xenon, may provide promising future directions for sustainable anesthesia practices. Therefore, it is vital to find ways to minimize the environmental impact of anesthetic gases and promote green anesthesia practices to ensure a sustainable future.

G-2019

Brain Organoids; A novel drug discovery model for neurodegenerative diseases: Advantages and Disadvantages

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Introduction: Neurodegenerative diseases (NDDs) present significant challenges, both in terms of the financial burden of treatment and the strain they place on caregivers and communities. Currently, available treatments for NDDs are only able to alleviate symptoms, with no definitive cure in sight. Addressing this issue is urgent, and there is a growing need for more effective drug discovery methods. Brain organoids have emerged as a promising avenue for research in this context. These miniature, 3-D cell-culture-derived organs closely resemble human brain tissue, enhancing the relevance and translational potential of NDD models in the lab. This study focuses on reviewing the utilization of brain organoids to advance drug development for NDDs, considering their strengths and limitations as valuable platforms for modeling these complex diseases.

Method & material: In this review, databases such as PubMed, Scopus and Google scholar were searched for articles published between 2015 and 2021 with keywords referring to brain organoids , neurodegenerative disease and "drug discovery and all their synonyms and derivatives. We excluded non-English, unrelated and duplicate studies and then, all articles related to drug development for NDDs using brain organoids, were analyzed for their results.

Result: The selected studies showed that brain organoids are very similar to real human brain structure, and are therefore of great interest for NDDs modeling and drug screening. As a disadvantage, although organoids make up almost all cell types of an organ and have a similar structure to it, they only recapitulate the organs parenchyma. They lack stromal components such as blood vessels, the immune system, connective tissues, and inflammatory cells.

Conclusion: Brain organoids, as advanced in vitro models, offer significant promise in the study of Alzheimer's disease (AD) and other neurodegenerative disorders. Traditional AD models have limitations, often lacking complexity and functionality. Brain organoids, derived from stem cells, provide a more sophisticated platform that can recapitulate key AD pathologies such as amyloid plaque and neurofibrillary tangle formation. This makes them invaluable for drug screening and evaluating potential AD treatments.However, it's worth noting that brain organoids have their drawbacks, notably the absence of stromal components that play a role in the disease microenvironment. Despite these limitations, their ability to mimic human brain tissue has led to increased attention in the field of NDD research. Brain organoids not only serve as a valuable tool for drug discovery but also contribute to a deeper understanding of NDD mechanisms. Ultimately, they hold the potential to accelerate the development of effective treatments for these devastating disorders.

G-2020

Investigating the relationship between disease severity and serum, calcium and vitamin D levels in patients with covid

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Introduction: SARS-CoV-2 is spreading rapidly worldwide these days so that it has infected people in many countries. It is a zoonotic virus and the cause of COVID-19 infectious pneumonia. The World Health Organization (WHO) declared it a pandemic on January 30, 2020. Given that no standard treatment has been found for the new coronavirus so far, the present study seeks a way to reduce the incidence and severity of the disease along with health protocols. Some of the factors possibly effective in getting less infected by the SARS-CoV-2 are|taking medication supplements such as zinc, calcium, and vitamin D.

Method & material: This cross-sectional study was conducted from May 13 to May 30, 2020, on 93 COVID-19 patients admitted to Khatam Al-Anbia Hospital in Shushtar in southwestern Iran. Some patients' laboratory and clinical of were collected and analyzed using the Chi-squared test, the independent t-test, the KruskalWallis test, and the Spearman rank-order correlation coefficient by IBM SPSS Statistics 18.0 software

Result: The severity of the disease (40%) of 37 patients was severe in pulmonary involvement. Serum levels of vitamin D and zinc were lower than the average in all patients. Still, the severity of COVID-19 in patients was not significantly different from their zinc serum levels (P = 0.216). Serum vitamin D was not significantly different (P = 0.102). The severity of COVID-19 in patients was significantly different according to serum calcium levels (P = 0.005). The lower the calcium level, the more severe the disease.

Conclusion: Given that the supplementation's effect in preventing COVID-19 has not been confirmed and no study has been published on the appropriate dose of these supplements in COVID-19, taking economically viable calcium-rich food sources, including dairy, is recommended

G-2023

In silico design of a vaccine against guillain barre syndrome using reverse vaccinology; an immune epitope–mapping and computational study

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Introduction: Guillain-Barre Syndrome (GBS) is an autoimmune disorder characterized by the immune system attacking the peripheral nerves, leading to muscle weakness and potentially life-threatening paralysis. While the exact causes of GBS remain elusive, it has been associated with preceding infections from various pathogens, including Campylobacter jejuni, Zika virus, and cytomegalovirus. Vaccination has been hypothesized as a potential trigger for GBS development, emphasizing the need for bioinformatic approaches in vaccine design. The design of effective vaccines for GBS-associated pathogens presents unique challenges. By targeting key antigens or viral proteins implicated in GBS pathogenesis, these vaccines have the potential to provide vital protection against GBS following infections with specific pathogens.

Method & material: We selected major epitopes associated with GBS. The sequences were then connected and evaluated for epitopes by machine learning based servers. Expasy, MODELLER, and RaptorX were used for 3D modelling. Schrodinger package was used for molecular dynamics simulation with MHC-I/MHC-II and TLR9. Gene cloning and analysis of physicochemical properties was performed.

Result: A multi-epiyopr vaccine with 850 aminoacids was built. 25 epitopes of CTL and HTL were detected by IEDB and CTLpred evaluations. Suitable epitopes for both MHC-I/CTL and MHC-II/HTL were recruited. In MDS, Osmolarity of blood was reached by adding Na+/Cl- ions and neutralizing the system.Next, final MD run for 20 ns was performed and analysed by Molecular Mechanics-Possion Boltzman analyses. RMSD was stabilized from 7 ns timepoint and beyond. Also, binding energies remained negative for the stabilized last frame of MD trajectory. Visulalization by UCSF Chimera indicated the vaccine-TLR complex did not exceed the box and remain docked properly, as verified by energy analyses. Number of contacts was also analyzed by Chimera contract criteria and found to be still robust after the MD analysis in blood-like conditions. Binding energy was suitable at 100 KJ/mol for the last fram extracted using trjconv command. occupancy for H-bonds throughout the 10,000,000-step trajectory.

Conclusion: We assembled and assessed immunological properties of a GBS-targeting vaccine. Further clinical study is advised.

G-2024

Fascinating Effects of Baicalein or Baicalin on Urological Cancer: A Systematic Review

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Introduction: One of the biggest causes of death worldwide and a significant global health issue is cancer. Despite available treatments, chemotherapy medications have harmful side effects and many different types of drug resistance that diminish their effectiveness. Dietary chemo preventive medicines, as supplementary cancer treatment options, have drawn more attention recently as a result of their great effects to suppress, reverse, or delay the process of carcinogenesis. This is because tumor cells have become resistant to conventional therapy. There is growing evidence of the pharmacological effects of Baicalin. This flavonoid compound isolated from the roots and leaves of Scutellaria baicalensis Georgi, have shown anticancer effects in different studies. In this systematic review, current evidence on the anti-cancer effect of baicalin and baicalein on urological neoplasms has been summarized

Method & material: To conduct this systematic review, a comprehensive systematic literature search was carried out in the electronic databases including the Cochrane Central Register of Controlled Trials, PubMed, Scopus, Web of Science, ProQuest, and Google scholar, up to September 2022. Two independent researchers evaluated the retrieved publications, and the selected studies were then critically appraised by a related checklist to animal studies. All preclinical research on baicalin and baicalein therapy in cancer animal models was included. In vitro studies or studies without full-text availability were omitted. Data such as studied animal, size of tumor, intervention dose and etc. were extracted

Result: We retrieved 2300 relevant publications in electronic databases. After a thorough examination of the titles and abstracts, duplicate publications (n=783), and invitro subjects, 2249 of them were eliminated. Fifty-one papers' full texts were examined, and ultimately seven studies satisfied our inclusion criteria. The effects of baicalin or baicalein on different animals with urological cancer compared with placebo. Six studies were related to prostate cancer, while, one was related to bladder. In Six studies cancer model was on mice, and in one related prostate cancer, it was on rats. The model induction was via engrafting the cancer cell lines into nude mice, or Purina rats. Baicalin or Baicalein were used in different doses, and their effects on tumor progression were evaluated using tumor volume reduction, tumor growth inhibition, cell cycle-associated proteins using western blot, and cytological changes of apoptosis. The results indicated that baicalin or baicalein significantly inhibited tumors.

Conclusion: Baicalin or baicalein significantly inhibited urological tumor growth and volume in vivo. Taken together, these compounds have the potential to be a cutting-edge anticancer medication for the treatment of urological malignancies. We assume that baicalin or baicalein has the potential to be developed into a novel anticancer agent that can be used alone or in combination with already available, effective chemotherapeutic medications to treat cancer more effectively in the future.

G-2025

Prediction of Opioid Adverse Events using Artificial Intelligence (AI): a Systematic Review

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Introduction: Opioid Use Disorder (OUD), defined as physical or psychological dependence on opioids, has been a global obstacle for decades and has become a major issue with the rise in opioid overdose deaths caused by OUD. Artificial Intelligence (AI) is any system that comprehends the environment and can take action based on the information taken to maximize the chance of achieving the goal. Artificial intelligence models have recently been developed to predict these cases based on data from previous patients. Clinical data of patients with OUD and overdose history has been statistically analyzed to predict the risk of opioid use adverse events in specific populations. However, statistical analysis cannot predict the risk of adverse events in a precise patient due to differences between individuals of the same population.

Method & material: A comprehensive systematic literature search was conducted in electronic databases, including PubMed, Scopus, Embase, and Google Scholar, up to December 2022. Relevant keywords such as "adverse opioid reaction, opioid overdose, and artificial intelligence have been used for this purpose. Two authors evaluated the retrieved publications independently. All studies that used AI models or algorithms to predict OUD or opioid overdose were included. Studies that weren't written in English or conference papers were excluded. Any study that met our inclusion criteria was then critically appraised by two authors independently. Data such as AI algorithms and databases used in studies were extracted.

Result: 2071 relevant publications were retrieved from electronic databases. After thoroughly examining the titles and abstracts and removing duplicates (n=624), 27 studies remained. Full texts of these articles were reviewed, and ultimately 11 studies were included in our review. Machine Learning (ML) was used in eight of these studies, Deep Learning (DL) in two, and Natural Language Processing (NLP) in one. Most of the included articles were related to the last 10 years. The risk of OUD or overdose and also the harmless dose of opioids were predicted using AI models. Some studies evaluated early detection of OUD or overdose.

Conclusion: Predicting OUD and its overdose not only saves lives but can also help countries' security. Using AI to predict the risk of OUD and overdose is a new step, and standard AI algorithms are insufficient. Changes are required for these models to be entirely suitable for this purpose. AI algorithms have shown promising performance in maintaining big data and providing an almost exact prediction of adverse outcomes of opioid use. However, the morality of OUD-specific AI interventions and the protection of personal health data has not been discussed adequately. These AI models have been used in industry and education but they haven't emerged in medical eras due to the insufficiency of AI models.

G-2026

Association of Androgenetic Alopecia with diabetes mellitus type 2: A Case–control Study

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Introduction: One of the factors causing the progression of diabetes is insulin resistance, which is seen in a large number of people with type 2 diabetes and is the best indicator to predict the increased risk. Studies have shown that androgenic alopecia in men is a risk factor for the development of impaired glucose tolerance and type 2 diabetes.

Method & material: 179 people with diabetes (in the last three years) as cases and 183 non-diabetics hospitalized as controls based on inclusion and exclusion criteria were included in our study and the necessary information was entered in a pre-designed checklist. Analyzes were performed based on SPSS software version 16.

Result: Age, sex, body mass index and family history were significantly associated with androgenic alopecia. With increasing age each year, the chance of developing alopecia increases 0.24 times (P 0.001) and with increasing each unit of body mass index, the chance of developing alopecia increases 0.18 times (P 0.001). Men are 42 times more likely to develop alopecia than women (P = 0.001). People with a family history of diabetes are twice as likely to develop alopecia (P = 0.015).

Conclusion: Age, sex, body mass index and family history were significantly associated with androgenic alopecia. People with a family history of diabetes are twice as likely to develop alopecia (P = 0.015). Given these cases, it is necessary to examine insulin resistance and diabetes associated with androgenic alopecia in the wider statistical community over a longer period of time, the results of which can be used to control both diseases and reduce mortality due to Diabetes plays an important role.

G-2027

An elderly cadaver with bilateral cryptorchidism: A case report

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Introduction: Cryptorchidism is a common congenital abnormality of the male genital system with absence of at least one testicle inside the scrotal sac (1). About 3% of newborn infants and 30% of premature male babies are born with one or both testicles undescended. The true undescended testis has arrested migration along its usual path of descent, or it is termed ectopic testis when it migrates from its usual path of descent to lie in the abnormal site (2). During our routine dissection in one of the male cadavers, we detected a mass on the left and right side of the inguinal region. This man was 73 years old, 95 kg weigh and 169 cm tall.

Method & material: During a routine cadaver dissection of a male for medical students at the anatomy department of Islamic Azad University, Najafabad, Iran. During dissection, the left and right testes were found in the inguinal region. It was later confirmed by detailed examination as an undescended testicle.

Result: The descent and migration of the testis may stop at any point along the path or be diverted to an abnormal location (ectopic testis) along descent. The main reasons for treating cryptorchidism include increased risks of impaired fertility potential, testicular malignancy, torsion, and/or associated inguinal hernia. The causes of its occurrence in terms of embryology and development, clinical symptoms and some of its latest treatments were considered for our case discussion. Such practical findings occasionally actually raise awareness of structural abnormalities in elementary learners.

Conclusion: Congenital cryptorchidism, also known as undescended testis, is a common and abnormality of the genitourinary tract among males. It increases the risk of testicular germ cell tumors and reduced semen quality. Two vital hormones, androgens and insulin-like peptide 3 (INSL3), play an essential role in the descent of testicles from the abdominal cavity to the scrotum during fetal and testicular development. Cryptorchidism occurs when there is a congenital defect in the regulatory or anatomical process of testicular descent, but the exact cause is still unknown. Several rare disorders can cause undescended testis, indicating a multifactorial etiology.

G-2028

Investigating the Healing Effects of a Burn Ointment Based on herbal Oils, Honey, and Eggs on 2nd and 3rd Degree Burn Wounds in Male NMRI Rats

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Introduction: Burn injuries are a significant global health concern. Burn wounds are classified into three degrees based on the depth and severity of the injury. Both second- and third-degree burns can result in substantial morbidity, prolonged hospitalization, and increased risk of infection. According to the findings, herbal ointment with natural ingredients has a significant effect on the repair and healing of burn wounds. This present animal study was conducted to investigate the effect of natural herbal ointment which created based natural ingredients mostly herbal oils, honey and eggs.

Method & material: To prepare the natural herbal ointment, the registered step-by-step process involving two series was carried out based on patent (number:108750) in IRI patents office. In-vivo test In this study, 28 male NMRI rats with an average weight of 25 ± 5 g were selected. The rats were randomly divided into four equal groups. 2nd-degree burn wounds were created in two groups, and 3rd-degree burn wounds were created in the other two groups, following the protocol below: 1.Group 1: 2nd-degree burn wounds induced by applying 95°C for 6 seconds (2nd-degree burn control group) 2.Group 2: 3rd-degree burn wounds induced by applying 95°C for 10 seconds (3rd-degree burn control group) 3.Group 3: 2nd-degree burn wounds induced by applying 95°C for 6 seconds (2nd-degree burn intervention group) 4.Group 4: 3rd-degree burn wounds induced by applying 95°C for 10 seconds (3rd-degree burn intervention group) The burn wounds were created using a custom-made device by

Result: According to the image analyze, the wound surface area, hemorrhage score and inflammation score in all groups, tends to reduce over the 14-day period. What is here important, is the rate of reduction which is faster in ointment groups than control groups. It is worth noticing that as a general result, this ointment is more effective in 2nd degree burns than in 3rd degree burns.

Conclusion: The results of this study have shown that the use of the right combination of herbal materials, due to their synergistic effect, has a much greater healing effect than the use of each of them individual. The results of this study can be considered as the zero phase of a clinical trial study and be the basis of wider human studies.

G-2031

Design of a fully-automated real-time multiplex fast-PCR pipeline for research and clinical diagnosis facilities of Iran

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Introduction: Currently, in Iran, gene expression analyses are dominantly performed manually using SYBR green master mix (or Taqman) to assay one gene at a time. Although methods to perform RT-PCR vary, the traditional method takes long lab sessions to prepare the mix and load the template and an additional 2 hours to complete holding stage, thermocycling, and melt curve stages. Due to that each full run takes a long time, this limits the facility of each RT-PCR machine to about 2-4 runs per working day. Manual handling increases error. This error could vary between PCR runs, further corrupting the validity of results. Contamination using the manual method is hard to avoid. Solution should; 1)reduce time for preparation/conducting PCR-runs, 2)prevent contamination; 3)eliminate error, 4)investigation of multiple genes, 5)prepare the assay in the dark/cool temperature maintaining quality of the master-mix, and 6)improve personnel safety. Importantly, other than research, diagnostic usages such as COVID-19

Method & material: A pipeline is designed: a)automated sampling unit. b)a safety unit to avoid contaminations, c)fast-multiplex-PCR protocols with suitable master mix for extremely short thermal cycles and d)a light-shield to enable pre-PCR preparation in the dark. Descerіption:automated sampling contains 2 96-needle-mega-samplers, one "template plate" and the other "final PCR tubes" which are placed in the thermocycler machine for RT-PCR. Additionally, an 8-needle sampler will be used, one to transfer master mix and the rest for primers. A plate is placed beneath needles in a 96-tube plate with 8 accessory tubes for primers/master mix. The system automatically transfers the fast-PCR compatible master mix and primers to all wells. The sample is placed in 96-well section. In a dark room. machine transfers the amount of template set by user to corresponding tune. User sets cycling protocol, then, run starts. We suggest fast-PCR (40-min) protocols and multiplex-PCR to further utilize this method as an extremely

Result: Marketing focuses on that the protocol helps to multiply the run numbers and increase output of research and clinical diagnostic facilities. We will target pharmaceutical companies, research facilities, and hospitals. Marketing approach could focus on safety and meeting the urgency associated with clinical diagnosis needs, while for research facilities focus will be on handling large projects rapidly.

Conclusion: This protocol is presented to R&D facilities to extend the idea to processes such as DNA/RNA extraction.Media, physical banners, and agents to describe the utility of system to facilities will be employed.

G-2032

The Role of Artificial Intelligence in Medical Applications: A Review

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Introduction: Artificial Intelligence (AI) has emerged as a transformative technology with the potential to revolutionize various aspects of healthcare. In this review article, we explore the applications of AI in medicine, focusing on its impact and potential in improving diagnostics, treatment planning, personalized medicine, and healthcare delivery. We discuss the key methodologies and algorithms employed in AI systems, such as machine learning and deep learning, and examine the challenges and ethical considerations associated with integrating AI into clinical practice. Through an analysis of current research and real-world examples, we highlight the immense potential of AI in transforming healthcare and its implications for patient outcomes and healthcare efficiency.

Method & material: In this study over 15 articles about the relation between hypertension and personalized medicine. During this research, articles are collected from Pubmed , Google scholar , Scopus .

Result: 1. Introduction - Brief overview of AI and its significance in healthcare - Importance of AI in addressing medical challenges 2. AI in Diagnostics - Image recognition and analysis for radiology and pathology - Automated detection and classification of diseases - Early detection and prediction of diseases 3. AI in Treatment Planning - Personalized treatment recommendations - Optimization of treatment protocols - Drug discovery and development 4. AI in Personalized Medicine - Genomic analysis and precision medicine - Predictive modeling and patient risk assessment - Tailoring interventions based on patient characteristics 5. AI in Healthcare Delivery - Streamlining administrative tasks and patient management - Telemedicine and remote monitoring - Decision support systems for clinicians 6. Methodologies and Algorithms - Machine learning and its various approaches (supervised, unsupervised, reinforcement learning) - Deep learning and neural networks - Natural Language Processing (NLP) and text mining 7. Challenges and Ethical Considerations - Data

Conclusion: In conclusion, this review highlights the transformative potential of AI in various medical applications. From diagnostics to treatment planning and personalized medicine, AI has the capacity to improve healthcare delivery and patient outcomes. However, careful attention must be given to address challenges related to data privacy, bias, and ethical considerations to ensure the responsible and effective integration of AI into clinical practice. With continued research and collaboration, AI can contribute significantly to the advancement of medical science and patient care.

G-2033

Effects of the Covid-19 pandemic on the prevalence of developmental disorders in preschool children: a study during the crisis

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Introduction: The Covid-19 pandemic has created a global health emergency. Among the environmental factors affecting the learning capacity and physical and mental health of children during the pandemic are: Quarantine, reduced physical and social activity, excessive use of tablets and phones, and unhealthy eating. Because children's health is one of the most important issues for SGD, on this basis, the present study was conducted with the aim of investigating the prevalence of developmental disorders in preschool children during the covid-19 pandemic.

Method & material: In this cross-sectional descriptive retrospective study, the growth status of 2112 children during the corona pandemic was evaluated using Ages & Stages Questionnaires. This questionnaire includes five areas; Communicating is gross movements, subtle movements, personal social behavior and problem solving. These questionnaires were administered in all comprehensive urban and rural health service centers for all children at the age of 6 months, 12 months, 24 months, 36 months and 60 months with the help of parents and caregivers, and the data are from 6 comprehensive urban health service centers. and the village that was selected by census.

Result: Among the 2112 examined children, 511 were 6 months old, 878 were 12 months old, 304 were 24 months old, 306 were 36 months old, and 113 were 60 months old. Of these, 1143 were girls (54.1%) and 969 (45.8%) were boys. In total, 154 patients in one area and 4 patients in two areas had developmental disorders, so that; Developmental delay in communication 65 cases (3.07%), gross movements 20 cases (0.94%), fine movements 41 cases (1.94%), problem solving 19 cases (0.8%), personal social issues 13 cases (0.61%) Receipt.

Conclusion: This research shows that the covid-19 pandemic could have a significant impact on the prevalence of developmental disorders in preschool children, especially in the areas of communication and fine movement. These results can help health and education organizations and centers to provide programs and measures for early identification and intervention in developmental disorders in this age group.

G-2034

Appropriation of DC-based vaccine loaded with cancer stem cell lysate (from lab to human) : a systematic review

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Introduction: Cancer is the second cause of death among diseases worldwide. The biggest challenge in various types of cancer is escaping the immune system, and nowadays, dendritic cell-based vaccines have been introduced as an effective method in this regard. Unfortunately, many cancers recur after recovery, putting the host's life at risk.Cancer stem cells (CSCs) are the most common cause of recurrence in various types of cancer. By targeting these cells in dendritic cell-based vaccine methods, a significant step can be taken in the treatment of cancer without the possibility of relapse. In this study, an attempt has been made to take an effective step towards integrating information on this type of treatment method by systematically reviewing studies in this field.

Method & material: A comprehensive search was conducted using relevant keywords, including MeSH terms of DC vaccine, cancer, and cancer stem cell, in databases such as Web of Science, Scopus, Embase and PubMed. Additionally, out of 861 findings (until september 2023), 23 studies were found to be relevant to the topic of this article and match to the selection criteria (the existence of a dendritic cell-based vaccine and the use of its antigenic extract as a stimulator for CSCs) & PRISMA checklist.

Result: In this systematic review, the effectiveness of a dendritic cell-based vaccine loaded with CSC lysates was evaluated from laboratory to clinical levels. The results of this study showed that extensive research has been conducted in this area. Additionally, the dendritic cell vaccine reversed the tumor-promoting process in studies and increased the expression of some inflammatory markers such as Il-12, while decreasing the expression of immune system suppressor markers such as TGF-β, CTLA-4, and Pd-l1.

Conclusion: Based on the results, dendritic cell vaccine pulsed with CSC antigenic extract can potentially be used as a treatment to prevent relapse in patients with chemo-resistant tumors, by activating the immune system.

G-2035

Investigating the effect of Lactobacillus rhamnosus GG silver nanoparticles on the expression of bax and bcl-2 genes in colorectal cancer cells

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Introduction: Colorectal cancer, after skin, breast, and stomach cancer, is one of the most common cancers and the third leading cause of death in men and women; the most common treatment for patients with advanced colorectal cancer is surgery followed by chemotherapy. However, an important part of patients are exposed to problems such as side effects and resistance. Silver nanoparticles are among the most desirable nanoparticles that are widely used in various fields. Various studies have shown the anti-cancer properties of silver nanoparticles, which can be used to induce genes effective in apoptosis. This study aims to investigate the effect of silver nanoparticles - Lactobacillus rhamnosus GG on the expression of bax and bcl-2 genes in a colorectal cancer cell line.

Method & material: To prepare silver nanoparticles/Lactobacillus rhamnosus GG extract, 1 mg/ml of Lactobacillus rhamnosus GG cell lysate and 1 mM silver nitrate solution were mixed and incubated for 72 hours. XRD, FTIR, and electron microscope methods were used to determine the properties of nanoparticles. ; Then the colorectal cancer cell line (HT-29) was treated with concentrations of 250, 125, and 62.5 µg/ml silver nanoparticles-Lactobacillus rhamnosus GG. Then, to check the gene expression, RNA was extracted, cDNA was prepared and the expression of bax, and bcl- 2, and -actin expression was analyzed by real-time method and using SYBR Green color. The results were analyzed by non-parametric method (Mann-Whitney) by SPSS software.

Result: The electron microscope results showed that the nanoparticles have a spherical shape and are approximately 233 nm in size. FTIR spectroscopy showed that silver nanoparticles/lactobacillus rhamnosus GG extract are functional and have active biomolecules. The X-ray diffraction pattern indicated the nanoparticles' purity and regular crystal structures. In addition, bax gene expression under the influence of 125 and 250 micrograms/microliter of Lactobacillus rhamnosus GG silver nanoparticles was significantly higher than the negative control group (p0.05).The expression of the bcl-2 gene was significantly lower than the negative control group under the influence of 250 µg/µl concentration of Lactobacillus rhamnosus GG silver nanoparticle (p0.05).

Conclusion: The results of this study showed that silver nanoparticle/Lactobacillus rhamnosus lysate has anticancer and apoptotic power. Therefore, probiotics can be used as a new strategy in the expression of apoptotic genes in colorectal cancer.

G-2037

Design and Psychometric Evaluation of a Tool to Identify Factors Affecting the Use of Personal Protective Equipment in Caring for COVID-19

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Introduction: The role of personal protective equipment (PPE) in preventing the transmission of COVID-19 cannot be denied. However, various individual, environmental, and organizational factors affect their use among healthcare workers. Therefore, having a standard tool to evaluate these factors is essential. This study aimed to design and psychometrically evaluate a tool to identify factors affecting the use of PPE.

Method & material: This exploratory study with a design and psychometric approach was conducted in 2021 on 240 nurses caring for COVID-19 patients. The initial items were extracted based on a literature review, and the item pool was created. The face and content validity of the tool were evaluated by a panel of experts and nurses. The construct validity was assessed using exploratory factor analysis on a sample of nurses. The reliability of the tool was measured using Cronbach's alpha and intercorrelation coefficient. Statistical analysis was performed using SPSS version 16.

Result: After evaluating the content validity and deleting non-essential items, a tool with 26 items in three dimensions (13 items for individual factors, nine items for organizational factors, and four items for environmental factors) was developed. The content validity ratio (CVR: 0.71), and the content validity index (CVI: 0.94) were calculated. The reliability of the tool was confirmed with a Cronbach's alpha coefficient of 0.88 for all items, 0.79 for environmental factors, 0.96 for organizational factors, and 0.90 for individual factors. The test-retest reliability coefficient using the intercorrelation coefficient was 0.81 in a preliminary study conducted on 15 nurses over two shifts and a 10-day interval.

Conclusion: The designed tool to identify factors affecting the use of PPE in caring for COVID-19 patients has desirable validity and reliability. This tool can be used in future studies to identify barriers and challenges in using PPE and offers insights for hospital policymakers and managers.

G-2038

Body Mass Index Association with COVID-19 Outcome in a Pediatric Tertiary Referral Hospital of Iran

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Introduction: One of the challenging risk factors for severe COVID-19 infection is obesity and Body Mass Index (BMI). In this study we have assessed BMI association with outcomes in hospitalized pediatric cases of COVID-19 in Iran.

Method & material: This retrospective cross-sectional study was performed in the biggest referral pediatric hospital of Tehran from March 7th to August 17th of 2020. All hospitalized children <18 years of age with laboratory confirmed COVID-19 were included into the study. In this study, we evaluated the association of BMI with COVID-19 outcomes (death, severity of clinical course, oxygen therapy, ICU admission, ventilator requirement) and secondary objectives was investigating the association of gender, underlying co-morbidity, and age of patients with COVID-19 outcomes. BMI 95 percentile, 85≤ BMI ≤ 95, and BMI5 percentile were respectively considered as obesity, overweighting, and underweighting.

Result: In total, 189 confirmed pediatric cases of COVID-19 (0.1- 17 years) with mean age 6.4 (∓4.7) years were included. It was recorded that 18.5% of the patients were obese, and 33% were underweight. We found that BMI had no significant relation with COVID outcomes in pediatric cases but after subgrouping the participants, underlying co-morbidities and lower BMI in previously ill children were independently associated with poor clinical outcome of COVID-19. In addition, the previously ill children with higher BMI percentiles were at lower risk of ICU admission (95% CI 0.971-0.998, OR: 0.9, P value: 0.025) and better clinical course of COVID-19 (95% CI 0.970-0.996, OR: 0.9, P value: 0.009). The BMI percentile has a significant direct relationship with age (Spearman correlation coefficient: 0.26, P value: <0.001). When we separated the children with underlying co-morbidity, the BMI percentile was significantly lower (P value<0.001) in comparison to the previously healthy children.

Conclusion: Based on our results, obesity is not related with COVID-19 outcomes in Iranian children, but after controlling cofounders' effect, underweighted children with underlying co-morbidities are more highly associated with poor prognosis of COVID-19.

G-2039

The effect of spiritual care program on stress, anxiety and depression of cancer patients

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Introduction: Cancer, as a chronic disease, is one of the common causes of death worldwide 15 In the world, about one sixth of deaths are caused by cancer About 300 000 people are diagnosed with cancer every year Cancer is a disease that affects many families and communities in all parts of the world With access to adequate care, more than 80 of people with cancer can survive and lead healthy lives 23 In cancer, due to its chronic nature, the patient and parents face a lot of tension Cancer affects the quality of life, mental and physical health, daily life activities, family dynamics and the role of each family member 14 Various studies have reported the psychological stress caused by the burden of cancer for the patient's family, equal to or even higher than the patient himself Facing unfamiliar caregiving demands 11

Method & material: The present research was conducted in a review way and by searching in accessible databases including: Magiran , Google scholar, PubMed, ProQuest within the range of the last few years

Result: Due to the increasing emphasis on providing spiritual care as an important part of holistic nursing care, the trend of research in recent years is to investigate the effectiveness of spiritual care on the physical, mental and spiritual health of patients. This is despite the fact that in th e f ield of providing spiritual care to patients, most of all cancer patients who, due to the specific conditions of the disease and the chronic nature of their dise ase , tend towards spiritual and religious issues, are placed in the priority level of importance (21). Research is considered a strong predictor, source of hope and promoter of mental health 8).

Conclusion: Cancer is one of the most common and complicated chronic diseases known. Getting cancer, receiving aggressive, expensive, long term treatments, complications from chemotherapy and other common treatments that occur for patients, on the physical, mental, social and spiritual condition and on the functioning of the systems (body and soul)) affects patients. Du e to the nature of cancer disease, most patients from the very beginning of the disease diagnosis, or during treatment or in th e final stage of their disease, for many reasons such as common beliefs about cancer disease, the uncertainty of the effect of treatment, the lack of early palliative medicine along with medical treatments. The patient's mental framework is disturbed and they unconsciously experience a state of fear, worry, stress, anxiety, loss of hope, purpose and meaning of life. Often this situation is associated with depression and a feeling of extreme helplessness.

G-2040

Necessity of training family caregivers of patients with heart failure

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Introduction: One of the most common heart diseases is heart failure, which is a major global health concern and causes significant complications and mortality. Patients with heart failure face complex physical problems such as sleep disorders, breathing problems, skeletal muscle atrophy and muscle function, weakness, iron deficiency and anemia, daily activity limitation. Also, heart failure has a devastating effect on the quality of life and energy levels of the family. Therefore, family caregivers of heart failure patients experience many psychological problems and challenges. Paying attention to the needs of family caregivers of these patients seems very necessary. Therefore, the purpose of this study is to identify the most important needs of family caregivers of heart failure patients.

Method & material: In the present review study, the articles published in SID, Magiran, Iran Medex, PubMed, Google Scholar, Cinahl, Science Direct databases from 2010 to 2022 with keywords need, family caregivers, heart failure, family caregiver, Heart Failure, need have been published and reviewed. The studies that investigated the needs of heart failure patients were reviewed in two stages. Based on the inclusion and exclusion criteria, the title and abstract were examined in the first stage and the entire article in the second stage, finally 19 articles were included in the study.

Result: The reviewed studies show a high caregiving burden in family caregivers of people with dementia. The duration of the disease, its progressive course, as well as the lack of definitive treatment and the creation of moderate to severe dependence of the patient on the caregiver, doubles the burden of care on family caregivers. High levels of caregiving burden can lead to disorders such as frustration, anxiety and physical problems and ultimately decrease the quality of life in family caregivers of heart failure patients. Also, a review of the above studies shows that the family caregivers of patients with heart failure face many problems and many challenges, including the lack of knowledge and skills for care, feeling hopeless, especially after the patients are discharged, on this basis, it is necessary To be supported from various aspects of information, knowledge and understanding of the disease. Also, caregivers face many unknowns while taking

Conclusion: Training family caregivers of heart failure patients is very important; therefore, it is necessary for health care providers, including nurses and the rehabilitation team, to pay special attention to the needs and educational aspects of caregivers in addition to the rehabilitation of these patients.

G-2041

Problems of heart failure patients in Iran

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Introduction: Heart failure is a chronic, common and costly disease that affects the quality of life, independence and functional ability of patients. Identifying the life challenges of these patients can help to increase the quality of life and thus improve the performance and treatment results. The purpose of this study is to identify the life challenges of heart failure patients.

Method & material: In the present review study, the articles published in SID, Magiran, Iran Medex, PubMed, Google Scholar, Cinahl, Science Direct electronic databases from 2005 to 2021, with keywords challenge, need, heart failure, patient were published and have been investigated. The studies that investigated the challenges of heart failure patients were reviewed in two stages. Based on the inclusion and exclusion criteria, the title and abstract were examined in the first stage and the entire article in the second stage, finally 16 articles were included in the study.

Result: Of the 36 articles included in the final review, 6 were cross-sectional descriptive, 18 were interventional, and 12 were qualitative. Based on the findings of the reviewed studies, the most important challenges in heart failure patients include: Compatibility with the disease , Self-care at home , following a multi-drug regimen , Fatigue , Inadequate training , Insufficiency emotional and emotional , decrease in social performance and finally improper quality of life .

Conclusion: It is very important to pay attention to the challenges of patients with heart failure and determine the solution to solve it; Therefore, there is a need for health care providers, including nurses and the rehabilitation team, to pay special attention to the needs and aspects mentioned in the care and education of heart failure patients at the time of discharge.

G-2042

The Initial Psychological Experiences of Health Care Providers on the Front Line of the Fight against COVID-19: A Qualitative Study

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Introduction: The spread of COVID-19 has created significant pressures and challenges for health care providers, especially nurses. Working in these variable and unpredictable environmental conditions has resulted in unique psychological experiences for them. Therefore, the present qualitative study was conducted to describe the initial psychological experiences of health care providers on the front line of the fight against COVID-19.

Method & material: This exploratory qualitative study was conducted in 2020 in three teaching hospitals in Iran, including Ayatollah Kashani Hospital, Amir Al-Momenin Hospital, and Valiasr Hospital in Arak city. Semi-structured face-to-face, in-depth, and purposeful interviews were conducted with 12 nurses employed in COVID-19 centers until data saturation was reached. The inclusion criteria were nurses working in COVID-19 centers with at least a bachelor's degree. Data coding was performed using MAXQDATA software. Data analysis was performed concurrently with data collection using the conventional content analysis approach based on the Graneheim and Lundman method. Four proposed criteria by Lincoln and Guba including credibility, dependability, confirmability, and transferability were used to ensure the validity and reliability of the data.

Result: The majority of participants in this study were women (91.66%). The mean age of the participants was 28.54 ± 3.98 years and their mean work experience was 5.25 ± 2.89 years. The data analysis showed that nurses' psychological experiences were categorized into three themes: negative emotions due to fatigue caused by heavy workload, fear and anxiety of contracting the virus and transmitting it to their families, and a strong sense of duty and professional responsibility.

Conclusion: The present study showed that the COVID-19 pandemic has led to individual and professional concerns among nurses. Despite their positive psychological experiences such as helping their colleagues and fulfilling their professional responsibilities, paying attention to the psychological and emotional needs of health care providers on the front line of the fight against COVID-19 is essential to maintain a healthy workforce for dealing with the current crisis and potential future pandemics and emerging diseases.

G-2044

Consequences of breaking bad news for the patient, family and medical staff: a qualitative study

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Introduction: During their professional life, all medical staff are forced to share worrying news about the health status of their patients, and this causes mild to severe changes in the physical and mental characteristics of the patient and the family, and also expresses anxiety and fear for the individual. brings bad news. The purpose of this qualitative study is to discover the experiences of the medical staff, patients and families of breaking bad news and its consequences.

Method & material: The present study is a part of a grounded theory study using the approach of Strauss and Corbin 2015. With the purposeful sampling method, people with experience in breaking and receiving bad news were referred. And based on theoretical sampling, the interviews continued until sufficient information was obtained and answers to the research questions were obtained. To collect data, semi-structured in-depth interview, observation and note taking in the field were used.

Result: Findings: The number of participants is 30, including: 20 medical staff (10 nurses, 2 head nurse, 1 supervisor and 1 nursing instructor), 4 physician (social medicine specialist, urology resident, internal medicine resident and pediatrics), 1 social worker) and 4 patients, there were 7 families. In this study, the four main categories belief in knowing the patient's right to understand the reality , mental and psychological disturbances and the occurrence of unforeseen reactions, reality shock as a consequence of the process of breaking bad news in intensive care units, has been identified.

Conclusion: In the process of informing the bad news, the patients and families are faced with the diagnosis of the disease and it causes them many mental and emotional problems and they cannot adapt themselves to the existing reality. Therefore, they are looking to blame themselves. On the other hand, the medical staff, especially nurses, suffer from mental and emotional problems, stress and anxiety when breaking bad news. They are also exposed to injuries and verbal harassment of breaking bad news. Therefore, it is recommended that all the members of the treatment staff involved in this process get the necessary training and use a single template to breaking bad news and not inform them individually.

G-2045

Models of breaking bad news to the patient and family: a systematic review

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Introduction: breaking bad news in a correct and principled way supports the patient emotionally and strengthens the relationship between the medical staff and the patient and strengthens the cooperation between them. On the other hand, it reduces anxiety and depression in the patient and the treatment staff. The purpose of this review was to review the available studies and evidence to better understand the methods of reporting bad news..

Method & material: Method: The present study is a systematic review. In this study, reliable Persian databases including: Magiran, SID and international databases including PubMed, Web of Science, Scopus, Google Scholar, and scienceDirect were searched. From the keywords extracted from MeSH including: Breaking bad news, Truth Disclosure, Patients, Client, Treatment staff, Family, Model, guideline, instruction, protocol it was done in the period of 1992-2022. 23 eligible studies were based on the guidelines of PRISMA and to evaluate the quality of qualitative studies from the CASP checklist and STROBE checklist from the descriptive-analytical observational studies were conducted.

Result: Models such as spikes, BREAK, PEWTER, ABCDE, ING GRIEV and TALK, PACIENTE, Tat are presented to convey bad news, especially cancer news. On the other hand, there are other strategies such as: Lee 2002, McGuigan 2009, Abazari 2016, Salem Ahmad 2013, Kaye 1996. But the spikes model is the oldest and at the same time the most practical model.

Conclusion: The process of delivering bad news requires a lot of skill and a specific pattern to prevent adverse psychological effects on the patient and his relatives. If the bad news is conveyed in a wrong way, it can cause anxiety, confusion, hatred and anger of the patient and his family. On the other hand, conveying bad news in an appropriate manner reduces unrealistic expectations, denial, false despair, confusion and anxiety in the patient and his relatives.

خلاصه مقالات فارسی

G-1266

بررسی ارتباط سرعت رسوب گلبول های قرمز و شاخص های گلبول قرمز درکودکان بستری شده با شکایت تب و سرفه در بخش اطفال بیمارستان امام خمینی جیرفت در سال 1402

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مقدمه: سرعت رسوب گلبول های قرمز (ESR)یکی از رایج‌ترین نشانگرهای اندازه‌گیری التهاب یا آسیب بافتی است. میزان شاخص‌های التهابی خون میتوانند تحت تاثیر شاخص‌های گلبول قرمز باشند. لذا مطالعه حاضر با هدف تعیین ارتباط بین ESR و شاخص‌های گلبول قرمز در کودکان بستری شده با شکایت تب و سرفه در بخش اطفال بیمارستان امام خمینی جیرفت در سال 1402 انجام شد

مواد و روش ها: پژوهش حاضر توصیفی-تحلیلی مقطعی است که جمعیت مورد مطالعه آن، کودکان بستری شده زیر 16 سال در بخش اطفال بیمارستان امام خمینی جیرفت با شکایت تب و سرفه در فروردین ماه 1402 بودند. بیمارانی که بیماری زمینه‌ای شناخته شده‌ای داشتند یا داروی خاصی را به صورت طولانی مدت مصرف می‌کردند از مطالعه خارج شدند. حجم نمونه با روش نمونه گیری در دسترس 156 نفر تعیین شد. سطح ESR و میزان شاخص های گلبول قرمز (RBC، HB، HCT، MCV، MCH و MCHC و پلاکت) به ترتیب با استفاده از روش وسترگرن و استفاده از دستگاه سل کانتر محاسبه گردید. همبستگی بین ESR و شاخص های گلبول قرمز با استفاده از ضریب همبستگی اسپیرمن تعیین گردید. همچنین از از آزمونهای t Student و U Mann-Whitney برای سنجش همبستگی بین متغیرها بر اساس جنسیت استفاده شد. سطح معنی‌داری 5 درصد معنی دار در نظر گرفته شد.

نتایج: برای اینکه بتوان تفسیر درستی از نتایج ESR و شاخص های گلبول قرمز داشت، باید ارتباط و اثرگذاری آنها بر یکدیگر و تاثیرپذیری آنها از سن و وضعیت سلامتی افراد را دانست. در پژوهش حاضر 156 نفر (63 زن + 93 مرد) با میانگین سن 3.14 ± 27.26 ماه شرکت نموده اند. میانگین سرعت رسوب گلبول قرمز 18.8± 31.23 بود. بین ESR و(r=-0.282, p0.001) RBC و ESR و , r=-0.215) HCT p=0.007) رابطه منفی معنادار برقرار بود اما بین ESR و (r=0.159 , p=0.048) MCV، ESR و MCH (r=0.214 , p=0.007)، ESR و (r=0.209 , p=0.009) MCHC و ESR و (r=0.194 , p=0.015) PLT رابطه مثبت معنادار وجود داشت. بین ESR و (r=-0.098 , p=0.225) HB رابطه معنادار آماری وجود نداشت.

بحث و نتیجه گیری: نتایج مطالعه نشان داد که در جمعیت مورد مطالعه، ESR با شاخص‌های گلبول قرمز به جز هموگلوبین ارتباط دارد، بنابراین هنگام تفسیر نتایج آزمایش ESR باید تغییرات شاخص‌های گلبول قرمز مدنظر قرار گیرد. نتایج مطالعه قابلیت تعمیم به جوامع بزرگتر را دارد.

G-1296

Evaluation of physicochemical and biological properties of nanodots for gene transfer to bacteria

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مقدمه: دستکاری ژنتیکی باکتری ها از اهمیت بسزایی در مهندسی ژنتیک ، تولید پروتئین نوترکیب و درمان بیماری های عفونی برخوردار است.با این وجود حضور ساختار های ماکرومولکولی در غشا و دیواره باکتری ها مانع از انتقال موثر اسیدنوکلئیک به درون باکتری می شود ،لذا طراحی یک حامل موثر که توانایی عبور از موانع ذکر شده در غشا و دیواره باکتری ها را دارد ، ضروری به نظر می رسد.

مواد و روش ها: نانوذرات در تحقیقات اخیر برای انتقال ژن به سلول ها از خود پتانسیل بالایی نشان داده اند که از میان نانوذرات مختلف نانودات ها به ویژه نانو دات به دلیل خواص منحصر بفرد فیزیکی و شیمیایی می توانند درفرایند انتقال ژن موثر واقع شوند ،لذا در این پژوهش برای اولین بار خواص فیزیکوشیمیایی و زیست سازگاری نانودات های مبتنی بر گلیسرول به کمک امواج مایکروویو مورد ارزیابی قرار گرفت.

نتایج : آزمایش های DLSو طیف سنجی فلورسانس شکل گیری نانودات هایی با خاصیت فلورسانس را تایید کرد.علاوه بر این آزمون ژل رتاردیشن اتصال موفقیت آمیز DNAبه این نانودات ها را نشان داد.همچنین انکوباسیون نانودات با باکتری و انجام آزمون کدورت سنجی حاکی از زیست سازگاری بالای این نانوذرات بود.

بحث و نتیجه گیری: به دلیل خاصیت فلورسانس و اتصال موفقیت آمیز با دنا و زیست سازگاری بالا در گام های بعدی قابلیت انتقال ژن به باکتری توسط این نانوذرات مورد ارزیابی قرار خواهد گرفت.

G-1368

Value creation in nursing: a qualitative study

ایوب اکبری [1] © ℗, **غلامحسین محمودی راد** [2]

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مقدمه: فرآیند خلق ارزش مستلزم آن است که همه ذینفعان نقش فعال داشته باشند و موسسه از امکانات و منابع خود برای ایجاد ارزش استفاده کند. ارزش آفرینی نه تنها متکی بر تعاملات بین اعضای گروه است، بلکه مستلزم مطالعه سایر ویژگی ها نیز می باشد. باورها و ادراکات بیماران و کارکنان و زمینه اجتماعی مشارکت آنها جزء لاینفک خلق ارزش است. این مطالعه با هدف تبیین تجربیات مدیران پرستاری در زمینه ارزش آفرینی در پرستاری انجام شد.

مواد و روش ها: در این پژوهش از رویکرد تحلیل محتوای کیفی- توصیفی استفاده شد. نمونه گیری به صورت هدفمند از فروردین تا آذر 1401از مدیران پرستاری شاغل در بیمارستان های آموزشی بیرجند که مایل به شرکت در مطالعه بودند انجام شد. داده ها از طریق مصاحبه های بدون ساختار جمع آوری شد. برای تجزیه و تحلیل داده ها از روش تحلیل محتوای کیفی Graneheim & Lundman (2020)و برای فرآیند دقت داده ها از چهار معیار لینکلن و گوبا استفاده شد. تمام مصاحبه ها ضبط شد، در یک فایل Wordتایپ شد و وارد MAXQDA (2020)شد. بیست و دو مصاحبه با نوزده شرکت کننده انجام شد.

نتایج: در این مطالعه یازده شرکت کننده (57%) مونث و هشت شرکت کننده (43%) مذکربودند. آنها در سه سطح مدیریتی مختلف شامل سرپرستاران، سوپروایزرین و مترونها بودند. پس از تجزیه و تحلیل داده ها، 1179 کد باز، ده زیرطبقه و چهار طبقه اصلی ایجاد شد. چهار طبقه اصلی شامل ارزش خواهي، شناسايي هدفمند ارزش ها، تعیین استراتژیهاي رشد ارزش ها و تحکیم و تداوم ارزش ها می باشند.

بحث و نتیجه گیری: با اولویت دادن به ارزش آفرینی و تاکید بر اهمیت آن، مدیران پرستاری می توانند به طور موثر نتایج مراقبت از بیمار را بهبود بخشند و کیفیت کلی مراقبت ارائه شده در سازمان های مراقبت بهداشتی را افزایش دهند. علاوه بر این، مدیران پرستاری با زمینه سازی فرصت ها برای شکوفایی ارزش ها و هدایت آنها به سمت منافع ارزشمند، نقش مهمی در تسهیل و حفظ ارزش ها در سازمان ایفا می کنند. بنابراین، درک صحیح مدیران پرستاری از ارزش های پرستاری و ارزش آفرینی در عملکرد پرستاری ضروری است.

G-1375

The effect of hydroalcoholic extract of claw on gene expression and lipoprotein activity of adipose tissue of normal male rats fed a high-fat diet

ویدا خلفی [1] ℗، حسین کارگر جهرمی [2] ©، سها عزیزی [1]، زهرا کارگر جهرمی [3]، درسا قره غونی [1]، یاسر ساریخانی 3

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مقدمه: بافت چربی اثر تنظیمی خود بر هموستازی انرژی را از طریق تولید آدیپوکاین ها یا آنزیم هایی از قبیل لیپوپروتئین لیپاز اعمال می کند. در طب سنتی از گیاه پنجه شیطان به عنوان ضد التهاب، آنتی اکسیدان، ضد آلرژی، ضد دیابت، ضد روماتیسم، ضد سرطان و کاهش دهنده اشتها استفاده می گردیده است. هدف مطالعه حاضر بررسی اثر لیکوپن بر بیان ژن و فعالیت لیپوپروتئین لیپاز در موش های صحرایی نر نژاد ویستار بود.

مواد و روش ها: *در پژوهش حاضر از 48 سر موش صحرایی نر نژاد ویستار با میانگین وزنی200-180 گرم استفاده شد. حیوانات در 6 گروه 8 تایی شامل کنترل، تجربی 1 (تغذیه با غذای نرمال و دریافت عصاره پنجه شیطان 300 میلی گرم)، تجربی 2 (تغذیه با غذای نرمال و دریافت عصاره پنجه شیطان 600 میلی گرم)، تجربی 3 (کنترل پرچرب= تغذیه با غذای پرچرب به مدت 2 ماه)، تجربی 4 (تغذیه با غذای پرچرب و دریافت عصاره پنجه شیطان 300 میلی گرم)، تجربی 5 (تغذیه با غذای پرچرب و دریافت عصاره پنجه شیطان 600 میلی گرم) تقسیم شدند. پس از گذشت 28 روز از دریافت عصاره، از حیوانات خونگیری شد و بافت چربی اپیدیدیم جدا شد. مقدار آنزیم لیپوپروئتین لیپاز سرم با استفاده از کیت الایزا شرکت دیامترا-ایتالیا اندازه گیری شد. نتایج به کمک نرم افزار SPSSنسخه 21 در سطح آماری 5 درصد تجزیه و تحلیل شد.*

نتایج: میانگین سرمی آنزیم لیپوپروتئین لیپاز و میانگین بیان ژن لیپوپروتئین لیپاز در بافت چربی اپیدیدیم در گروه های سالم دریافت کننده لیکوپن (تجربی 1و2) نسبت به گروه کنترل سالم و در گروه های پرچرب دریافت کننده لیکوپن (تجربی 4و 5) میلی گرم نسبت به گروه کنترل پرچرب (تجربی3) افزایش معنی داری در سطح آماری 5 درصد نشان داد. بیشترین اثر مربوط به غلظت600 میلی گرم عصاره هیدروالکلی پنجه شیطان بود.

بحث و نتیجه گیری: لیکوپن یک کاروتنوئید با خاصیت آنتی اکسیدانی و ضدچربی قوی، میانگین بیان ژن لیپوپروتئین لیپاز بافت چربی اپیدیدم و فعالیت سرمی آنزیم لیپوپروتئین لیپاز موش های صحرایی نر بالغ را به طور چشمگیری افزایش داد.

G-1379

ارزیابی وضعیت استرس شغلی و ارتباط آن با مواجهه روزانه با صدا و ارتعاش در رانندگان اتوبوس های درون شهری

رامین رحمانی [1] © ℗، محسن علی آبادی [1]، فاطمه سلگی [2]، رستم گلمحمدی [3]، محمد بابامیری [2]، مریم فرهادیان

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مقدمه: رانندگان اتوبوس با عوامل زیان آور مختلفی از قبیل صدا و ارتعاش مواجهه دارند که ممکن است منجر به افزایش سطح استرس شغلی در آن ها شود. استرس شغلی دارای عوارض مختلفی است. مطالعات بسیار اندکی در مورد ارتباط بین استرس شغلی و مواجهه رانندگان با صدا و ارتعاش وجود دارد. لذا این مطالعه با هدف ارزیابی استرس شغلی رانندگان اتوبوس های شهری در مواجهه روزانه با صدا و ارتعاش انجام شد.

مواد و روش ها: *پژوهش حاضر به صورت مقطعی در بازه زمانی تیر و مرداد سال 1399 انجام شد. جامعه آماری شامل 103 نفر از رانندگان اتوبوس های شهری همدان بود. نمونه گیری به روش تصادفی و با درنظر گیری داشتن حداقل یک سال سابقه کاری و نداشتن شغل دوم انجام شد. شرکت در این مطالعه، اختیاری بود. یکی از مسیرهای جابه جایی مسافر به صورت تصادفی انتخاب شده و با استفاده از دستگاه های Svan 104 و Svan 106 مواجهه روزانه رانندگان اتوبوس با صدا و ارتعاش تمام بدن و دست - بازو اندازه گیری شد. همچنین به منظور سنجش استرس شغلی از پرسشنامه استاندارد فیلیپ ال رایس استفاده شد. برای تجزیه و تحلیل داده ها از نسخه 24 نرم افزار SPSS در سطح معناداری 0.05 و آزمون های همبستگی و مقایسه میانگین کمک گرفته شد.*

نتایج: میانگین سن و سابقه کار رانندگان به ترتیب 42/48±6/73 و 11/85±5/01 سال بوده و میانگین شاخص توده بدني نيز 26/09±2/91 بود. همه رانندگان (100 درصد) متاهل بودند. بیشتر از نصف رانندگان (54/4 درصد) داراي تحصيلات ديپلم يا بالاتر بودند. از نظر وضعیت مصرف سیگار نیز نتایج نشان داد که اکثر رانندگان (86/4 درصد) مصرف سیگار نداشتند. میانگین مواجهه رانندگان با صدا برابر با 79/50±3/51 دسي بل و میانگین شتاب معادل ارتعاش تمام بدن و دست-بازو به ترتیب برابر با 0/62±0/16 و 0/44±0/06 متر بر مجذور ثانیه بود. بیشتر رانندگان (87/4 درصد) داراي استرس شغلي شديد بودند. بين امتياز استرس شغلي و مواجهه با صدا همبستگي مثبت و معناداري مشاهده شد. در حالي كه مواجهه با ارتعاش تمام بدن و دست –بازو، همبستگي معناداري با امتياز استرس شغلي نداشت.

بحث و نتیجه گیری: با توجه به بالا بودن شیوع استرس شغلی شدید در بین رانندگان اتوبوس های شهری و همبستگی معناداری که بین مواجهه با صدا و استرس شغلی مشاهده شد توصیه می شود که با سرویس های دوره ای و جایگزینی اتوبوس های فرسوده، تدابیری برای کاهش سطح مواجهه رانندگان با صدا اندیشیده شود

G-1381

ارزیابی وضعیت توانایی انجام کار ادراک شده و ارتباط آن با عوامل فردی و شغلی در کارکنان اتاق عمل بیمارستان های دولتی همدان

رامین رحمانی [1] © ℗، شیردل زندی [2]، بهزاد ایمنی [3]، سینا قاسمی [4]

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مقدمه: توانایی انجام کار کارکنان در یک سازمان، از عوامل کلیدی است که بر سود و زیان سازمان و بهره وری موثر است. کارکنان اتاق عمل، یکی از گروه های شغلی حیاتی در بیمارستان ها هستند که در معرض عوامل استرس زای متعددی قرار دارند. به دلیل کمبود نتایج مرتبط با توانایی انجام کار در این کارکنان، مطالعه حاضر با هدف ارزیابی وضعیت توانایی انجام کار ادراک شده و ارتباط آن با عوامل فردی در کارکنان اتاق عمل بیمارستان های دولتی همدان انجام شد.

مواد و روش ها: *برای انجام این مطالعه توصیفی تحلیلی که به صورت مقطعی در بهار 1402 انجام شد، تعداد 96 نفر از کارکنان شاغل در اتاق عمل بیمارستان های دولتی شهر همدان، به صورت سرشماری و با درنظر گرفتن معیارهای ورود (حداقل یک سال سابقه کاری و نداشتن شغل دوم) مورد بررسی قرار گرفتند. ورود به مطالعه و همکاری افراد اختیاری بوده و رضایت آگاهانه از آن ها اخذ شد. از طریق پرسشنامه استاندارد، توانایی انجام کار ادراک شده گزارش شده و متغیرهای فردی و شغلی نیز ثبت شد. به کمک نرم افزار SPSSنسخه 24 و روش های آمار توصیفی و تحلیلی، داده های این مطالعه آنالیز شد. سطح معناداری 05/0 در نظر گرفته شد.*

نتایج: میانگین سن و سابقه کار شرکت کنندگان به ترتیب برابر با 6/68±31/50 و6/46±8/31 سال بوده و میانگین ساعات کاری روزانه و هفتگی به ترتیب 1/12±7/93 و 8/36±50/78 ساعت بود. بیشتر افراد (78/1 درصد) شیفت گردشی داشته و دارای سطح تحصیلات کارشناسی (90/6 درصد) بودند. همچنین مشخص شد نزدیک به نصف افراد (43/8 درصد) استخدام رسمی بودند. بیشتر از نصف آن ها (56/3 درصد) به صورت منظم ورزش نمی کردند. میانگین نمره توانایی انجام کار ادراک شده (بین صفر تا 10) در این افراد برابر با 1/65±8/22 بود. نتایج نشان داد این نمره با تعداد ساعات کاری روزانه همبستگی معکوس معناداری داشته (r =-0/236 و P=0/02) با سایر عوامل فردی وشغلی ارتباط معناداری نداشت.

بحث و نتیجه گیری: نتایج مطالعه حاضر نشان داد که توانایی انجام کار ادراک شده در کارکنان اتاق عمل، نسبتا خوب می باشد. تنها عامل مرتبط با توانایی انجام کار، ساعات کاری روزانه بود. با توجه به این که سنجش توانایی انجام کار در مطالعه حاضر به صورت ذهنی انجام شده است، استفاده از روش های عینی و همچنین شناسایی سایر عوامل مرتبط از طریق طراحی مطالعات جامع تر، توصیه می شود.

G-1383

Artificial intelligence and bariatric surgery

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مرکز تحقیقات مراقبتهای پرستاری و مامایی , پژوهشکده بیماریهای غیر واگیر , دانشگاه علوم پزشکی شهید صدوقی یزد , ایران

مقدمه: چاقی شدید یک تهدید بهداشت عمومی جهانی با ابعاد رو به رشد است،که این بیماری علت بسیاری از بیماری های دیگر مثلدیابت،فشار خون بالا و بیماری های مفصلی است.جراحی چاقی به یک درمان محبوب برای درمان این بیماری ها تبدیل شدهاست.هوش مصنوعی توانایی کمک در پیش بینی عوارض شدید جراحی پیش از عمل را دارد.لذا این مطالعه با هدف مروری برتاثیر هوش مصنوعی درجراحی چاقی انجام شد.

مواد و روش ها: *این مطالعه مروری در سال2023 با جستجو در پایگاه های PubMed, Google scholar, Science Direct, Web of Science با کلید واژه های Artificial intelligence, bariatric surgery بدون در نظر گرفتن محدودیت زمانی انجام گرفت.مقالات در سهمرحله شامل مرور عنوان،مطالعه چکیده و مطالعه متن کامل بررسی شدند و مقالات تکراری و،غیر مرتبط با هدف مطالعه و فاقدمتن کامل حذف گردیدند.در نهایت از بین 7مقاله یافت شده 3مقاله مورد بررسی قرار گرفت و اطلاعات مرتبط با هدف استخراج شد.*

نتایج: بر اساس یافته ها،هوش مصنوعی در پیشگیری و کمک به بهبود پس از عمل جراحی ،تجزیه و تحلیل داده های بزرگ،ارزیابیریسک قبل از جراحی و مدیریت حین جراحی میتواند مورد استفاده قرارگیرد.جراحان برای کمک به ادغام هوش مصنوعی در عملمدرن موقعیت خوبی دارند،به این دلیل که الگوریتم های هوش مصنوعی توانایی پیش بینی دقیق عوارض بعد از عمل رادارند.بنابراین کیفیت مراقبت را بهبود می بخشد و به پزشکی دقیق کمک می کند

بحث و نتیجه گیری: هوش مصنوعی می تواند حجم زیادی از اطلاعات را تجزیه و تحلیل نماید.با استفاده از هوش مصنوعی می توان در سریعترین زمانبهترین اقدامات را انجام داد تا بیماری و عوارض آن زودتر تشخیص داده شود.در نتیجه مراقبت ها و درمان هم سریعتر است.افزونبر موارد فوق اتلاف وقت و هزینه ها را به طور قابل توجهی کاهش می دهد.

G-1391

Exosomes: Mediators of Parasite–Host Interactions in Hydatid Cyst Disease: Systematic Review

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مقدمه: کیست های هیداتید که توسط کرم نواری Echinococcus granulosusایجاد می شود، بیماری مشترک بین انسان و دام است که عمدتاً کبد و ریه میزبان واسط را تحت تأثیر قرار می دهند. مکانیسم های دخیل در ایجاد و ماندگاری اگزوزم های انگل به خوبی شناخته نشده است.با این حال، مطالعات اخیر اگزوزوم ها، نوعی وزیکول خارج سلولی را به عنوان واسطه های مهم در تعاملات انگل-میزبان شناسایی کرده اند.این مطالعه مروری با هدف بررسی اگزوزوم های کیست هیداتید و ارتباط آن با روش های تشخیصی،درمانی و سیستم ایمنی میزبان انجام شد.

مواد و روش ها: *مطالعات منتشر شده بین سال های 2016 تا 2022، بدون محدودیت زبان، گونه یا مرحله انگلی، گنجانده شد. مقالات غیر مرتبط با هدف، بررسی های روایی و اسناد اجماع حذف شدند. متغیرها شامل سال انتشار، بیمارانی که از لحاظ سرمی مثبت بودند و مرحله انگلی بودند. موتورهای متاجستجو همچون: Magiran،Sid،Science-Direct ،Pubmed ،Google-scholarو جستجوهای پیشرفته با استفاده از اصطلاحات MeSH، کلمات آزاد و اتصالات بولین (AND،ORو NOT)با استراتژی‌های اقتباس شده برای هر پایگاه داده انجام شد.در نهایت اسناد شناسایی شده در هر منبع اطلاعاتی با تکرار بین پایگاه‌های داده فیلتر شدند.همچنین با عنوان و چکیده،با استفاده از معیارهای واجد شرایط بودن مورد بررسی قرار گرفتند.*

نتایج: 35 مطالعه در مرحله اولیه انتخاب شدند.17مورد به دلیل تکراری بودن منابع اطلاعاتی حذف و 18 مقاله بر اساس عنوان و چکیده مورد بررسی قرار گرفتند که 5 مورد از آنها به دلیل غیر مرتبط بودن با هدف اصلی پژوهش حذف شدند، سپس تجزیه و تحلیل عمیق مطالعات انجام شد که منجر به حذف 4 مطالعه گردید که در مجموع تعداد 9 مقاله انتخاب شد. بیشترین تعداد مقالات انتخاب شده در بازه زمانی 2019 تا 2022 (5/55) می باشد. نمونه های مورد استفاده، مایع کیست هیداتید، پرتواسکولکس ها و سرم افراد مبتلا بود. خلاصه مطالعات به این صورت بود که اگزوزوم‌های مایع هیداتید و سرم بیماران مبتلا به اکینوکوکوزیس کیستیک برای محتوای RNAپروتئومی و غیر کدکننده آن‌ها مورد تجزیه و تحلیل قرار گرفته‌اند که این تجزیه و تحلیل ها با تکنیک هایی از قبیل Western Blotting، qRT-PCRو ELISAانجام شد

بحث و نتیجه گیری: این مقاله رویکرد جدیدی در مورد عملکرد و مکانیسم اگزوزم ها در بیماری کیست هیداتیک را ارائه می‌دهد.این یافته‌ها پتانسیل کمک به توسعه رویکردهای تشخیصی و درمانی جدید برای کیست‌های هیداتید را دارند.در این مطالعات پتانسیل وزیکول های خارج سلولی را به عنوان نشانگرهای زیستی تشخیصی، نامزدهای واکسن و عوامل درمانی در بیماری های انگلی، از جمله اکینوکوکوزیس کیستیک، بررسی شده است.

G-1395

Investigation of lipotrophic activities of ephedra on triglycerides and total cholesterol in wistar rats fed a normal and fat-enriched die

شادی اطرشی [1] ℗, درسا قره غونی [1], زینب سادات جلالی [1], مریم دهقانی [2], مریم تدین [1], حسین کارگر جهرمی [2] ©

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مقدمه: افدرا به عنوان مکمل کاهش وزن، دارای خواص ترموژنیک و محرکی می باشد که متابولیسم و حرارت بدن را افزایش می‌دهد. هدف مطالعه حاضر بررسی اثر لیپوتروفیک افدرا بر غلظت تری گلیسیرید و کلسترول تام بافت کبد و مدفوع موش های صحرایی نر نرمال و تغذیه شده با رژیم غذایی پرچرب می باشد.

مواد و روش ها: *در این مطالعه کاملا تصادفی، از 48 سر موش صحرایی نر نژاد ویستار با میانگین وزنی200-180 گرم و سن 7 تا 8 هفتگی استفاده شد. با توجه به مقاله های پیشین و طرح پایلوت انجام شده غلظت تجویزی عصاره هیدرو الکلی افدرا، 500 و 1000میلی گرم به ازای هر کیلوگرم وزن بدن مشخص گردید. حیوانات در 6 گروه 8 تایی شامل گروه های کنترل، تجربی1 (تغذیه با غذای نرمال و دریافت عصاره افدرا 500 میلی گرم)، تجربی2 (تغذیه با غذای نرمال و دریافت عصاره افدرا 1000 میلی گرم)، تجربی3 (کنترل پرچرب= تغذیه با غذای پرچرب)، تجربی4 (تغذیه با غذای پرچرب و دریافت عصاره افدرا 500 میلی گرم)، تجربی5 (تغذیه با غذای پرچرب و دریافت عصاره افدرا 1000 میلی گرم) تقسیم شدند. پس از گذشت 28 روز از دریافت عصاره، مدفوع و بافت کبد حیوانات جدا شد. یک گرم مدفوع و بافت کبد به 18 میلی لیتر هگزان-اتانول اضافه و پس*

نتایج: میانگین غلظت تری گلیسیرید و کلسترول تام در بافت کبد و مدفوع در گروه های تجربی 1و2 نسبت به گروه کنترل سالم کاهش معنی داری را در سطح آماری 5 درصد نشان داد. میانگین غلظت تری گلیسیرید و کلسترول تام در بافت کبد و مدفوع در گروه های تجربی 4و 5 نسبت به گروه کنترل پرچرب (تجربی3) کاهش معنی داری را در سطح آماری 5 درصد نشان داد. بیشترین اثر مربوط به غلظت 1000 میلی گرم عصاره افدرا بود.

بحث و نتیجه گیری: افدرا بخاطر داشتن خاصیت آنتی اکسیدانی و ضد اشتهایی و به صورت وابسته به دوز کاهش معنی داری در میانگین غلظت تری گلیسیرید و کلسترول تام در بافت کبد و مدفوع در موش های صحرایی نر بالغ ایجاد کرد.

G-1409

خوشه بندی وضعیت اقتصادی جمعیت شهری مطالعه ی کوهورت شهرکرد با استفاده از روش خوشه بندی حول مدوئید

الهه سنجری [1] Ⓟ, **علی احمدی** [2], **هادی رئیسی شهرکی** [2] ©

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مقدمه: مدوئید هر خوشه یکی از مشاهدات همان خوشه است که بیشترین مشابهت را با سایر اعضای آن خوشه دارد. این مطالعه با هدف خوشه بندی وضعیت اقتصادی جمعیت شهری مطالعه ی کوهورت شهرکرد با استفاده از روش حول مدوئید انجام شد

مواد و روش ها: *در این مطالعه مقطعی، کلیه شرکت کنندگان در جمعیت شهری مطالعه کوهورت شهرکرد با حجم نمونه 7034 نفر بر اساس سرشماری وارد مطالعه شدند. بمنظور خوشه بندی افراد از 8 متغیر که شامل: متراژ خانه، تعداد اتاق ها، داشتن کامپیوتر شخصی یا لپتاپ، داشتن خودرو، جاروبرقی و فریزر، همچنین تعداد سفر های داخلی طی ده سال گذشته و تعداد کل سفرهای خارجی استفاده شد. پس از استاندارد سازی متغیرها، عدم مشابهت بین دو به دو مشاهدات محاسبه و برآورد تعداد خوشه های بهینه توسط طیف وسیعی از شاخصها در پکیج NbClustصورت گرفت. نهایتا تعداد خوشه ای که بر اساس اکثریت شاخصها پیشنهاد شد بعنوان تعداد بهینه انتخاب گردید. همچنین جهت اختصاص مشاهدات به خوشه ها از پکیج kmedدر نرم افزار R 4.2.1استفاده شد.*

نتایج: با توجه به اینکه عدد دو توسط اکثر شاخصها پیشنهاد شد، تعداد خوشه بهینه برابر با دو در نظر گرفته شد که 2991 نفر در خوشه نخست و 4043 نفر در خوشه دوم قرار گرفتند. برخورداری از کامپیوتر شخصی یا لپتاپ در خوشه اول 4/78% و در خوشه دوم برابر با 7/70% بود (پی مقدار 001/0). برخورداری از خودرو شخصی در خوشه اول بطور معنی داری بیشتر از خوشه دوم بود (6/88% در مقابل 3/82%، پی مقدار 001/0). میانه متراژ خانه و تعداد اتاق ها در خوشه اول بترتیب برابر با 160 و 3 و در خوشه دوم برابر با 100 و 2 بود (پی مقدار 001/0). بنابراین با توجه به متغیرهای هشت گانه تحت بررسی، خوشه اول بعنوان خوشه افراد با وضعیت اقتصادی مطلوب و خوشه دوم تحت عنوان خوشه افراد با وضعیت اقتصادی متوسط نامگذاری شد.

بحث و نتیجه گیری: یافته های این مطالعه، خوشه بندی حول مدوئید را بعنوان یک روش چندمتغیره مناسب جهت خوشه بندی وضعیت اقتصادی افراد معرفی نمود. از متغیر وضعیت اقتصادی بدست امده در این مطالعه میتوان در مطالعات آتی استفاده نمود.

G-1410

ارتباط بین وضعیت اقتصادی و بیماری های غیر واگیر شایع در شهرکرد

الهه سنجری [1] Ⓟ، **علی احمدی** [2]، **هادی رئیسی شهرکی** [2] ©

[1] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی شهرکرد، شهرکرد، ایران

2 مرکز تحقیقات مدسازی در سلامت، دانشگاه علوم پزشکی شهرکرد، شهرکرد، ایران

مقدمه: : در طول دو دهه گذشته، نابرابری های اقتصادی و نقش متغیرهای مرتبط با اقتصاد و ثروت در میرایی و بروز طیف وسیعی از بیماری ها بیش از پیش مورد توجه قرار گرفته است. هدف از انجام این مطالعه، بررسی ارتباط بین وضعیت اقتصادی و بیماری های غیر واگیر شایع در شهرکرد بود.

مواد و روش ها: *این پژوهش یک مطالعه مقطعی در سال 1402 و به حجم نمونه 7034 نفر انجام شد. 9 بیماری غیر واگیر شامل: بیماریهای قلبی- عروقی، سکته قلبی، سکته مغزی، بیماریهای مزمن ریوی، سرطانها، پرفشاری خون، دیابت، افسردگی و چاقی در این مطالعه تحت بررسی قرار گرفتند. مبنای اطلاق بیماری مزمن، وجود سابقه پزشکی قبلی مبنی بر تایید پزشک متخصص و یا مصرف منظم داروهای مرتبط با بیماری بود. بمنظور تعیین وضعیت اقتصادی از روش خوشه بندی حول مدوئید استفاده شد که علاوه بر متغیرهای کمی، امکان استفاده از متغیرهای کیفی را نیز دارد. جهت تعیین وضعیت اقتصادی از متغیر های متراژ خانه، تعداد اتاق ها، تعداد سفر های خارجی و داخلی، دسترسی به فریزر، جاروبرقی، کامپیوتر و خودرو شخصی استفاده شد. تعداد خوشه های بهینه توسط پکیج NbClustبرابر با عدد 2 تعیین و خوشه بندی حول مدوئید توسط پکیج kmedoدر نرم افزار R 4.2.1انجام شد.*

نتایج: میانگین سرمی آنزیم لیپوپروتئین لیپاز و میانگین بیان ژن لیپوپروتئین لیپاز در بافت چربی اپیدیدیم در گروه های سالم دریافت کننده لیکوپن (تجربی 1و2) نسبت به گروه کنترل سالم و در گروه های پرچرب دریافت کننده لیکوپن (تجربی 4و 5) میلی گرم نسبت به گروه کنترل پرچرب (تجربی3) افزایش معنی داری در سطح آماری 5 درصد نشان داد. بیشترین اثر مربوط به غلظت600 میلی گرم عصاره هیدروالکلی پنجه شیطان بود.

بحث و نتیجه گیری: لیکوپن یک کاروتنوئید با خاصیت آنتی اکسیدانی و ضدچربی قوی، میانگین بیان ژن لیپوپروتئین لیپاز بافت چربی اپیدیدم و فعالیت سرمی آنزیم لیپوپروتئین لیپاز موش های صحرایی نر بالغ را به طور چشمگیری افزایش داد.

G-1430

بررسی ارتباط بین سلامت عمومی و کیفیت خواب با میانگین زمان استفاده فروشندگان اینترنتی از لوازم الکترونیک سال 1401

محدثه خوشگفتار [1] ℗, ابوالفضل رضایی [2], علی احمدی [2], زهره فتحیان دستگردی [3] ©

[1] آموزش بهداشت و ارتقا سلامت، کمیته تحقیقات دانشجویی،گروه آموزش بهداشت و ارتقا سلامت، دانشکده بهداشت،دانشگاه علوم پزشکی اصفهان

[2] دانشجوی کارشناسی، کمیته تحقیقات دانشجویی، گروه آموزش بهداشت و ارتقا سلامت، دانشکده بهداشت، دانشگاه علوم پزشکی اصفهان

[3] استادیار، گروه آموزش بهداشت و ارتقا سلامت، دانشکده بهداشت، دانشگاه علوم پزشکی اصفهان، اصفهان

مقدمه: استفاده بیش از اندازه ازاینترنت، منجر به کیفیت پایین خواب میشود. فروشندگان اینترنتی به دلیل ماهیت شغل خود و استفاده مداوم از وسایل الکترونیک بیش از گروه های شغلی دیگر در معرض کمبود خواب قرار دارند. خستگی فروشندگان اینترنتی به صورت احساس ذهنی و چندبعدی از خستگی تعریف میشود که حتی با وجود دوره های استراحت نیز باقی بماند و بر سلامت عمومی افراد اثر میگذارد. پژوهش حاضر با هدف تعیین ارتباط کیفیت خواب و سلامت عمومی و ساعات استفاده از وسایل الکترونیک در استان اصفهان انجام شده است.

مواد و روش ها: *در این مطالعه تحلیلی مقطعی که در سال 1401 در شهر اصفهان انجام شد، تعداد 389 فروشندگان اینترنتی براساس جدول مورگان و به روش نمونه‌گیری در دسترس انتخاب و بعد از گرفتن کد اخلاق وارد مطالعه شدند.داده ها با استفاده از پرسشنامه‌های اطلاعات دموگرافیک، سلامت عمومی و کیفیت خواب پیتزبورگ که به صورت انلاین برای افراد در پلتفرم های مجازی ارسال میشد، گرد آوری گردید. بمنظور تجزیه و تحلیل داده‌ها، از نرم افزار SPSSنسخه 23 استفاده شد. در قسمت آمار توصیفی فراوانی، میانگین و انحراف معیار و در آمار استنباط از آزمون های کای دو، رگرسیون تک متغییری و ضریب همبستگی پیرسون استفاده شد.سطح معنی داری کمتر از 0/01 در نظر گرفته شد.*

نتایج: میانگین سنی افراد 5±25/25 سال و میانگین سابقه کار آنها 5/6±4/6 سال بود. در کل، 67 درصد زن بودند. میانگین نمره کلی کیفیت خواب 1/77±18/14 بود که نشان دهنده کیفیت خواب ضعیف بود. شاخص کیفیت خواب 9/72% درحد نامطلوب بود و بین ساعات استفاده از وسایل الکترونیک، کیفیت خواب و سلامت عمومی ارتباط معنی داری دیده شد.میانگین نمره کیفیت خواب در دو حیطه تاخیر در به خواب رفتن و طول مدت خواب بالاتر از زیر مقیاس های دیگر بود. میانگین نمره اختلالات خواب 50/5±96/3 بود و بیشترین اختلال خواب مربوط به بی‌خوابی 2±6/1 بود. میانگین نمره خواب‌آلودگی روزانه 19/6±35/3 بود و8/47%خواب‌آلودگی خفیف داشتند.

بحث و نتیجه گیری: با توجه به گسترش روزافزون استفاده از اینترنت مخصوصاً در میان افراد جامعه، پیامدهای ناشی از اینترنت نیازمند توجه بیشتر میباشد، چراکه استفاده بیش از حد از رسانه‌های الکترونیکی برسلامت جسمی و روانی اثر منفی می‌گذارد. استفاده از وسایل الکترونیک می‌تواند بر کیفیت خواب مطلوب تأثیر جبران‌ناپذیری بگذارد، بنابراین باید به منظور کنترل فعالیت‌های اینترنتی افراد برنامه‌ریزی‌های صحیح صورت پذیرد. پیشنهاد میشود راهکارهای فردی و سازمانی، مداخله های رفتاری و شناختی با هدف تغییر الگوهای استفاده از اینترنت و بهبود کیفیت خواب اجرا شود.

G-1431

شیوع اختلالات اسکلتی عضلانی و ارتباط آن با توانایی انجام کار در کارکنان شاغل در اتاق عمل بیمارستان های دولتی همدان

سینا قاسمی [1] ℗, رامین رحمانی [2], شیردل زندی چرخه بیان [3] ©, بهزاد ایمنی

دانشجوی کارشناسی ارشد اتاق عمل، کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی همدان، همدان، ایران 1.

[2] گروه مهندسی بهداشت حرفه‌ای، دانشکده‌ی بهداشت و مرکز تحقیقات بهداشت و ایمنی شغلی، دانشگاه علوم پزشکی همدان، همدان، ایران

[3] کارشناس ارشد اتاق عمل، عضو هیئت علمی گروه اتاق عمل، دانشکده پیراپزشکی، دانشگاه علوم پزشکی همدان، همدان، ایران

[4] دانشیار، گروه اتاق عمل، دانشکده پیراپزشکی، دانشگاه علوم پزشکی همدان، همدان، ایران.

مقدمه: یکی از دلایل غیبت های ناشی از کار اختلالات اسکلتی عضلانی است که ممکن است بر توانایی انجام کار کارکنان اثر گذار باشد. کارکنان اتاق عمل، یکی از گروه های شغلی حیاتی در بیمارستان ها هستند که در معرض ریسک بالایی برای ابتلا به این اختلالات هستند. با توجه به تناقض در نتایج مربوط به شیوع اختلالات اسکلتی عضلانی در این کارکنان، مطالعه حاضر با هدف ارزیابی وضعیت اختلالات اسکلتی عضلانی و ارتباط آن با توانایی انجام کار در کارکنان اتاق عمل بیمارستان های دولتی همدان انجام شد.

مواد و روش ها: *برای انجام این مطالعه توصیفی تحلیلی که به صورت مقطعی در بهار 1402 انجام شد، تعداد 96 نفر از کارکنان شاغل در اتاق عمل بیمارستان های دولتی شهر همدان، به صورت سرشماری و با درنظر گرفتن معیارهای ورود (حداقل یک سال سابقه کاری و نداشتن شغل دوم) مورد بررسی قرار گرفتند. ورود به مطالعه و همکاری افراد اختیاری بوده و رضایت آگاهانه از آن ها اخذ شد. از طریق پرسشنامه های استاندارد، شیوع اختلالات اسکلتی عضلانی و توانایی انجام کار ادراک شده ثبت شد. به کمک نرم افزار نسخه 24 و روش های آمار توصیفی و تحلیلی، داده های این مطالعه آنالیز شد. همچنین سطح معناداری 0/05 در نظر گرفته شد*

نتایج: میانگین سن، سابقه کار و شرکت کنندگان به ترتیب برابر با 6/68±31/50 و 6/49±8/03 سال بوده و میانگین ساعات کاری روزانه و هفتگی به ترتیب 1/12±7/93 و 8/36±50/78 ساعت بود. نتایج نشان داد در بیش از 80 درصد افراد، تجربه درد و ناراحتی در حداقل یکی از اندام های بدن در یک سال گذشته وجود داشته است. بیشترین و کمترین شیوع اختلالات اسکلتی عضلانی مربوط به کمر (60/4 درصد) و آرنج (6/3 درصد) بود. میانگین نمره توانایی انجام کار ادراک شده (بین صفر تا 10) در این افراد برابر با 1/65±8/22 بود. نتایج نشان داد بین درد اسکلتی عضلانی در برخی از اندام ها از قبیل گردن و شانه و تعدادی از عوامل فردی (BMI، سابقه کار، تعداد ساعات کاری روزانه) همبستگی معناداری وجود داشت.(p=0/04 و r=-0/352) همچنین همبستگی معکوس و معناداری بین شدت درد اسکلتی عضلانی و توانایی انجام کار ادراک شده مشاهده شد.

بحث و نتیجه گیری: اغلب افراد حداقل در یک ناحیه تجربه درد داشته و شیوع درد اسکلتی عضلانی در ناحیه کمر بالا بود. ارتباط معکوسی بین توانایی انجام کار و اختلالات اسکلتی عضلانی در پرسنل اتاق عمل مشاهده شد. مطالعات جامع تری در این زمینه مورد نیاز است.

G-1442

The Effect of Gallic acid on gene expression and lipoprotein lipase (LPL) activity in rats

سارا شایانفر [1] ℗, حسنعلی عابدی [2] ©, حسین کارگر جهرمی [2], مریم بهرامی غیاث آبادی [1], کیمیا کارگرفرد 2

[1] کمیته تحقیقات دانشجویي، دانشگاه علوم پزشكي جهرم، جهرم ایران.

2 مرکز تحقیقات بیماریهاي غیر واگیر، دانشگاه علوم پزشكي جهرم، جهرم، ایران.

مقدمه: اچاقی و سندرم متابولیک به دلیل سهمی که در افزایش سریع بیماری‌های غیرواگیر دارند، از اهمیت علمی و بالینی قابل توجهی برخوردار هستند. اگرچه مکانیسم‌هایی که پاتوفیزیولوژی این عوارض را توصیف می‌کنند پیچیده باقی می‌مانند، التهاب و استرس اکسیداتیو برخی از عوامل اصلی دخیل در بدتر شدن اختلالات مرتبط با چاقی هستند. هدف مطالعه حاضر بررسی اثر گالیک اسید بر بیان ژن و فعالیت لیپوپروتئین لیپاز در موش های صحرایی نر نژاد ویستار بود.

مواد و روش ها: *از 48 موش صحرایی نر نژاد ویستار با میانگین وزنی200-180 گرم و سن 7 تا 8 هفتگی استفاده شد. حیوانات در 6 گروه 8 تایی شامل کنترل، تجربی 1 (دریافت گالیک اسید 50 میلی گرم)، تجربی 2 (دریافت گالیک اسید 100 میلی گرم)، تجربی 3 (کنترل پرچرب= تغذیه با غذای پرچرب به مدت 2 ماه)، تجربی 4 (تغذیه با غذای پرچرب و دریافت گالیک اسید 50 میلی گرم)، تجربی 5 (تغذیه با غذای پرچرب و دریافت گالیک اسید 100 میلی گرم) تقسیم شدند. پس از گذشت 28 روز از دریافت عصاره، از حیوانات خونگیری شد و بافت چربی اپیدیدیم جدا شد. بافت چربی در محلول RNA later و میکروتیوب RNAase Freeقرار داده شد و سپس RNAبر اساس دستورالعمل کیت یکتاتجهیز استخراج شد. سپس سنتز cDNAانجام شد و بیان ژن لیپوپروتئین لیپاز اندازه گیری شد. نتایج به کمک نرم افزار SPSS نسخه 21 تحلیل شد.*

نتایج: میانگین سرمی آنزیم لیپوپروتئین لیپاز و میانگین بیان ژن لیپوپروتئین لیپاز در بافت چربی اپیدیدیم در گروه های سالم دریافت کننده لیکوپن (تجربی 1و2) نسبت به گروه کنترل سالم و در گروه های پرچرب دریافت کننده لیکوپن (تجربی 4و 5) میلی گرم نسبت به گروه کنترل پرچرب (تجربی3) افزایش معنی داری در سطح آماری 5 درصد نشان داد. بیشترین اثر مربوط به غلظت100 میلی گرم گالیک اسید بود.

بحث و نتیجه گیری: اثر ضد هیپرلیپیدمیک اسید گالیک توانست میانگین بیان ژن لیپوپروتئین لیپاز بافت چربی اپیدیدم و فعالیت سرمی آنزیم لیپوپروتئین لیپاز موش های صحرایی نر بالغ را به طور معنی دار افزایش دهد.

G-1443

بررسی عوامل مرتبط با کیفیت خواب در دانشجویان دانشگاه علوم پزشکی اصفهان سال 1400

محدثه خوشگفتار [1] © Ⓟ, ناهید باغی [2], سحر کهکشان [2], فرشته نامداری [2], عارفه کریمی [2], مریم عمیدی مظاهری 3

دانشجوی دکتری آموزش بهداشت و ارتقا سلامت، کمیته تحقیقات دانشجویی، ، گروه آموزش بهداشت و ارتقا سلامت، دانشکده بهداشت.دانشگاه علوم پزشکی اصفهان 1

[2] دانشجوی کارشناسی بهداشت عمومی ، کمیته تحقیقات دانشجویی ، گروه آموزش بهداشت و ارتقا سلامت، دانشکده بهداشت، دانشگاه علوم پزشکی اصفهان، اصفهان، ایران

[3] دانشیار، گروه آموزش بهداشت و ارتقا سلامت، دانشکده بهداشت، دانشگاه علوم پزشکی اصفهان، اصفهان، ایران

مقدمه: : کمیت و کیفیت خواب انسان با سلامتی او در ارتباط است. اختلالات خواب تهدیدی جدی برای موفقیت تحصیلی و سلامتی دانشجویان میباشد. درک میزان شیوع این اختلالات و عوامل مرتبط با آن در تعیین سیاست های سلامت عمومی و انجام مداخلات به موقع در محیط دانشگاه ضروری است . لذا مطالعه حاضر با هدف تعیین کیفیت خواب و عوامل مرتبط با آن دردانشجویان دانشگاه علوم پزشکی اصفهان صورت گرفت.

مواد و روش ها: *در این مطالعه توصیفی- مقطعی، 491 نفر از دانشجویان با رضایت خود پرسشنامه کیفیت خواب پیتزبورگ را تکمیل کردند. نمونه گیری به صورت تصادفی ساده بر اساس سهم هر دانشکده از کلیه دانشجویان دانشگاه انجام شد. در این مطالعه متغیرهای سن، جنس، وضعیت تاهل، وضعیت اقتصادی (با سه سطح ضعیف، متوسط و بالا)، تحصیلات و ارزیابی کیفیت خواب اندازه گیری شد. رابطه عوامل خطر با کیفیت خواب با استفاده از مدل رگرسیون لجستیک بررسی شد. جهت تجزیه و تحلیل داده¬ها نیز از آزمون t مستقل، تحلیل واریانس تک¬متغیری و ضریب همبستگی پیرسون استفاده شد.*

نتایج: با توجه به اینکه عدد دو توسط اکثر شاخصها پیشنهاد شد، تعداد خوشه بهینه برابر با دو در نظر گرفته شد که 2991 نفر در خوشه نخست و 4043 نفر در خوشه دوم قرار گرفتند. برخورداری از کامپیوتر شخصی یا لپتاپ در خوشه اول 4/78% و در خوشه دوم برابر با 7/70% بود (پی مقدار 0/001). برخورداری از خودرو شخصی در خوشه اول بطور معنی داری بیشتر از خوشه دوم بود (6/88% در مقابل 3/82%، پی مقدار 0/001). میانه متراژ خانه و تعداد اتاق ها در خوشه اول بترتیب برابر با 160 و 3 و در خوشه دوم برابر با 100 و 2 بود (پی مقدار 0/001). بنابراین با توجه به متغیرهای هشت گانه تحت بررسی، خوشه اول بعنوان خوشه افراد با وضعیت اقتصادی مطلوب و خوشه دوم تحت عنوان خوشه افراد با وضعیت اقتصادی متوسط نامگذاری شد.

بحث و نتیجه گیری: یافته های این مطالعه، خوشه بندی حول مدوئید را بعنوان یک روش چندمتغیره مناسب جهت خوشه بندی وضعیت اقتصادی افراد معرفی نمود. از متغیر وضعیت اقتصادی بدست امده در این مطالعه میتوان در مطالعات آتی استفاده نمود.

G-1443

ارتباط بین وضعیت اقتصادی و بیماری های غیر واگیر شایع در شهرکرد

الهه سنجری [1] ℗، **علی احمدی** [2]، **هادی رئیسی شهرکی** [2] ©

[1] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی شهرکرد، شهرکرد، ایران

2 مرکز تحقیقات مدسازی در سلامت، دانشگاه علوم پزشکی شهرکرد، شهرکرد، ایران

مقدمه: : در طول دو دهه گذشته، نابرابری های اقتصادی و نقش متغیرهای مرتبط با اقتصاد و ثروت در میرایی و بروز طیف وسیعی از بیماری ها بیش از پیش مورد توجه قرار گرفته است. هدف از انجام این مطالعه، بررسی ارتباط بین وضعیت اقتصادی و بیماری های غیر واگیر شایع در شهرکرد بود.

مواد و روش ها: *این پژوهش یک مطالعه مقطعی در سال 1402 و به حجم نمونه 7034 نفر انجام شد. 9 بیماری غیر واگیر شامل: بیماریهای قلبی- عروقی، سکته قلبی، سکته مغزی، بیماریهای مزمن ریوی، سرطانها، پرفشاری خون، دیابت، افسردگی و چاقی در این مطالعه تحت بررسی قرار گرفتند. مبنای اطلاق بیماری مزمن، وجود سابقه پزشکی قبلی مبنی بر تایید پزشک متخصص و یا مصرف منظم داروهای مرتبط با بیماری بود. بمنظور تعیین وضعیت اقتصادی از روش خوشه بندی حول مدوئید استفاده شد که علاوه بر متغیرهای کمی، امکان استفاده از متغیرهای کیفی را نیز دارد. جهت تعیین وضعیت اقتصادی از متغیر های متراژ خانه، تعداد اتاق ها، تعداد سفر های خارجی و داخلی، دسترسی به فریزر، جاروبرقی، کامپیوتر و خودرو شخصی استفاده شد. تعداد خوشه های بهینه توسط پکیج NbClustبرابر با عدد 2 تعیین و خوشه بندی حول مدوئید توسط پکیج pamkدر نرم افزار R 4.2.1انجام شد.*

نتایج: یافته ها نشان داد که میانگین زمان خواب دانشجویان، 00:46 نیمه شب؛ ساعت بیداری¬، 07:47؛ میزان بیداری قبل از خواب 27 دقیقه؛ و میانگین خواب مفید 7 ساعت و 14 دقیقه بود.کیفیت خواب در 70/3 درصد دانشجویان نامناسب بود و بیشتر آنها 47 درصد اختلال تأخیر در به خواب رفتن را تجربه کردند. میانگین ساعات هفتگی استفاده از وسایل دیجیتال 17 ساعت بود. دانشجویان ساکن خوابگاه و دانشجویان دختر نسبت به سایر دانشجویان کیفیت خواب ضعیف تری داشتند. (p=0/01). نیمی از دانشجویان حداقل یک شب از هفته استفاده از وسایل دیجیتال را به خوابیدن ترجیح میدادند. همچنین افرادی که در هفته بیش از 4 شب استفاده از وسایل دیجیتال را به خوابیدن ترجیح میدادند کیفیت خواب ضعیفتری داشتند. عوامل جنسیت دختر (نسبت شانس=2.5 (2.1-3.1))، وضعیت اقتصادی متوسط (نسبت شانس=1.2 (1.0-1.5)) و استفاده بیش از حد از تلفن همراه (نسبت شانس=1.5 (1.1-1.9)) از عوامل خطر مرتبط با کیفیت بد خواب بودند

بحث و نتیجه گیری: نتایج این مطالعه ضرورت توجه بیشتر به بهداشت خواب در دانشجویان ساکن خوابگاه و افزایش مداخلات آموزشی در جهت استفاده درست از وسایل الکترونیکی و تلفن همراه و اقدامات پیشگیرانه را برجسته میکند. نامطلوب بودن کیفیت خواب بیش از نیمی از دانشجویان ضرورت توجه جدی مسئولین، خانواده¬ها و خود دانشجویان را در راستای پیشگیری از پیامدهای منفی خواب نامطلوب و همچنین ارتقاء سلامت روانی، اجتماعی و جسمانی را نشان می دهد.

G-1445

Comparison of the efficacy of ropivacaine and bupivacaine in spinal anesthesia for surgical removal of kidney stones through the skin

نوید کلانی [1]، سیده آیدا طباطبایی [2] ℗، دکتر رضا صحرایی [3] ©، دکتر رضا اینالو [4]، دکتر احمد رستگاریان [5]، دکتر فاطمه ذهبی 2

مربی، گروه بیهوشی، مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران 1.

[2] کمیته تحقیقات دانشجویي، دانشگاه علوم پزشكي جهرم، جهرم ایران.

[3] دانشیار گروه بیهوشی، مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران.

[4] استادیار گروه اورولوژی، دانشگاه علوم پزشکی جهرم، جهرم، ایران.

[5] استادیار گروه بیهوشی، مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران

مقدمه: در بی حسی نخاعی بی دردی پس از عمل و همچنین بی دردی و بی حرکتی حین اعمال جراحی یکی از مسایلی بسیار مهم میباشد که بر نتیجه جراحی و رضایتمندی جراح تاثیر بسزایی دارد. لذا هدف از انجام این مطالعه مقایسه اثربخشی روپیواکایین و بوپیواکایین در بیهوشی اسپاینال جهت جراحی بیرون اوردن سنگ کلیه از طریق پوست در بیماران مراجعه کننده به بیمارستان پیمانیه جهرم در سال1397 انجام پذیرفت.

مواد و روش ها: *این مطالعه از نوع کارآزمایی بالینی تصادفی شده دو سویه کور می باشد. در این مطالعه 93 نفر از بیماران تحت عمل جراحی نفرولیتوتریپسی با کلاس بیهوشی 1 و 2 وارد مطالعه شدند. بیماران به صورت تصادفی به دو گروه بوپیواکایین و روپیواکایین تقسیم شدند. ابزار جمع اوری اطلاعات در این مطالعه میزان تهوع و استفراغ، سطح بلوك حركتي بااستفاده از قدرت بیمار د رحرکت دادن پاها، سطح بلوك درد با استفاده از سوزن کند، سطح بلوک حسی با استفاده از تست الکل، کیفیت بی دردی و سنجش موتور بلاک بود.*

نتایج: گروه‌های بوپیواکایین و روپیواکایین از لحاظ جنسیت همسان بودند. بین گروه‌های بوپیواکایین و روپیواکایین از لحاظ فشار خون سیستول و دیاستول، ضربان قلب و تنگی نفس تفاوت آماری معنی داری وجود نداشت. بین گروه‌های بوپیواکایین و روپیواکایین از لحاظ شیوع تهوع استفراغ تفاوت معنی‌دار وجود داشت (.(p=0.008بین گروه‌های بوپیواکایین و روپیواکایین از لحاظ سطح بلوک درد تفاوت معنی‌دار وجود داشت (.(p=0.020بین گروه‌های بوپیواکایین و روپیواکایین از لحاظ کیفیت بی‌دردی تفاوت معنی‌دار وجود نداشت (.(p=0.075بین گروه‌های بوپیواکایین و روپیواکایین از لحاظ خم کردن پاها به عقب تفاوت معنی‌دار وجود داشت (.(p=0.015بین گروه‌های بوپیواکایین و روپیواکایین از لحاظ عدم توانایی حرکت انگشتان و ساق هر دوپا یا بلاک کامل و عدم توانایی در حرکت زانوها علیرغم حرکت انگشتان پا یا بلاک تقریباً کامل تفاوت معنی‌دار وجود داشت (.p=0.05)

بحث و نتیجه گیری: بنظر می رسد هر دو داروی روپیواکایین و بوپیواکایین باعث کیفیت بی دردی و موتور بلاک در بیماران تحت عمل جراحی نفرولیتوتریپسی می شود. اما بوپیواکایین باعث ثبات بهتر موتور بلک در بیماران می شود.

G-1448

Investigating the relationship between general self-efficacy and infection control performance in nurses of educational and therapeutic hospitals in Jahrom city in 2018

رحیم رئوفی [1] ©, سحر حاتمی منش [2] ℗, راحیل مصلی نژاد [2], نوید کلانی [3], حسین کارگر جهرمی 4

[1] دانشیار گروه عفونی، دانشگاه علوم پزشکی جهرم، جهرم، ایران.

[2] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی جهرم، جهرم ایران.

[3] مربی، گروه بیهوشی، مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران.

[4] مرکز تحقیقات بیماریهای غیر واگیر، دانشگاه علوم پزشکی جهرم، جهرم، ایران.

مقدمه: عفونت های بیمارستانی همواره یکی از مشکلات عمده بهداشتی و درمانی بوده و حدود یک سوم مرگ و میرها را در بیمارستان ها به خود اختصاص می دهد. عدم رعایت رفتار مرتبط با کنترل این عفونت ها توسط پرستاران، یک مشکل رفتاری بهداشتی محسوب می شود. لذا پژوهش حاضر با هدف تعیین ارتباط خودکارآمدی عمومی با عملکرد کنترل عفونت در پرستاران انجام شده است.

مواد و روش ها: *پژوهش حاضر یک مطالعه توصیفی می¬باشد که بر روی 186 نفر از پرستاران انجام شده است. ابزارهای گردآوری داد¬ه ها شامل پرسشنامه های ویژگی های جمعیت شناسی، خودکارآمدی عمومی و خود گزارشی عملکرد کنترل عفونت پرستاران بودند. روایی پرسشنامه ها به روش روایی محتوا و پایایی آنها از طریق بررسی همسانی درونی مورد ارزیابی قرار گرفت. داده ها با استفاده از نرم افزار آماری SPSSتجزیه و تحلیل شد.*

نتایج: نتایج ضریب همبستگی پیرسون نشان داد که بین خودکارآمدی عمومی و عملکرد کنترل عفونت بیمارستانی در پرستاران شاغل بیمارستان‌های آموزشی و درمانی شهرستان جهرم همبستگی مثبت وجود دارد (p=039/0، r=156/0)به طوری که با بهبود خودکارآمدی عمومی، عملکرد کنترل عفونت بیمارستانی در پرستاران شاغل ارتقا می‌یابد.

بحث و نتیجه گیری: ارائه آموزش های مداوم جهت افزایش دانش، تقویت نگرش مثبت و اصلاح رفتارهای کنترل عفونت پیشنهاد می شود. با عنایت به اینکه خودکارآمدی واسطه دانش و رفتار می باشد، پیشنهاد می شود برنامه های آموزشی پرستاران، بر مبنای ارتقای خودکارآمدی آنها باشد.

G-1449

Investigating the effect of intravenous ondansetron in the prevention of hypotension after spinal anesthesia in patients undergoing lower limb orthopedic surgery

دکتر معصومه پورمختار [1] ©، سحر حاتمی منش [2] ℗، راحیل مصلی نژاد [2]، نوید کلانی [3]، دکتر حسن ضابطیان 4

استادیار گروه ارتوپدی، دانشگاه علوم پزشکی جهرم، جهرم، ایران 1.

[2] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی جهرم، جهرم ایران

مربی، گروه بیهوشی، مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران 3

دانشیار گروه بیهوشی، مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران 4

مقدمه: بی حسی نخاعی یک روش کارآمد برای ارائه بی دردی در عمل جراحی و یک جایگزین بی خطر برای بی دردی عمومی می باشد؛ اما علیرغم مزایای آن، در بسیاری از موارد عاری از عوارض جانبی نیست که شامل حوادث قلبی و عروقی ناخواسته مانند افت فشارخون و برادی کاردی می شود. هدف از این مطالعه بررسی اثر اندانسترون وریدی در پیشگیری از افت فشارخون پس از بی حسی نخاعی در بیماران تحت جراحی ارتوپدی اندام تحتانی می باشد.

مواد و روش ها: *این مطالعه کارآزمایی بالینی تصادفی بر روی 60 بیمار 18تا 65 سال با کلاس بی هوشی(1 ASA class)و2 که کاندیدای عمل جراحی ارتوپدی اندام تحتانی بودند، صورت پذیرفت. بیماران به صورت تصادفی به دو گروه مداخله(8 میلی گرم اندانسترون به صورت وریدی) و شاهد(هم حجم آن آب مقطر (0/5میلی لیتر) داده شد) تقسیم شدند. فشار خون سیستولیک،دیاستولیک و تعداد نبض در زمانهای قبل از بی حسی اسپاینال، بعد از بی حسی اسپاینال و سپس در ده دقیقه اول هر دو دقیقه و در دقایق 15، 30، 45، 60 و 90 دقیقه بعد از عمل سنجیده شد. پس از انجام بی حسی اسپاینال در مورد خارش هر 10 دقیقه یک بار از بیمار پرسش شد. اوغ زدن و استفراغ حین عمل در صورت بروز، ثبت و وجود تهوع پس از بی حسی نخاعی هر 10 دقیقه از بیمار پرسش شد.آنالیز نتایج با استفاده از نرم افزار spssنسخه 21 انجام شد.*

نتایج: زمان‌های قبل از بی حسی، بلافاصله بعد از بی حسی، 10 دقیقه، 15 دقیقه، 30 دقیقه، 45 دقیقه، 60 دقیقه، 75 دقیقه، و 90 دقیقه بعد از بی حسی، تفاوت معناداری بین گروه های اندانسترون و پلاسیبو از نظر میانگین فشار خون سیستولیک و دیاستولیک و ضربان قلب وجود نداشت (P=. 05/0). نتایج تجزیه‌وتحلیل آماری نشان داد که تفاوت معناداری بین دو گروه اندانسترون و پلاسیبو در بروز خارش و تهوع استفراغ در زمان‌های مختلف نشان نداد (p=. 05/0).

بحث و نتیجه گیری: براساس نتایج حاصل از مطالعه حاضر دوز 8 میلی گرم اندانسترون در اعمال جراحی ارتوپدی اندام تحتانی تاثیر قابل ملاحظه ای بر علایم همودینامیک و همچنین پیشگیری از عوارض تهوع و استفراغ و خارش بعد از عمل در این بیماران ندارد. بنابراین برای رسیدن به نتایج بیشتر در ارتباط با اثر گذرای این دارو میتوان انرا با سایر داروهای دسته آنتاگونیست های گیرنده HT3-5مورد مقایسه قرار داد.

G-1480

The evaluation of analegesic effect hydro-alcoholic extract of phoenix Dactylifera (Jahrom Shahany Date) pit on acute and chronic pain and compare with ibuprofen and morphine in male rat

فائزه ابراهیمی زاده [1] ℗, مرضیه رحیمی پور [2] ©

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مقدمه: : درد یک مکانیسم دفاعی برای بدن می باشد ودر واقع یک احساس زجر آور است. یکی از راه کارهای ممکن جهت دستیابی به داروهای ضد درد جدید با کاربری بالا و آثار محدود کننده کمتر، توجه به گیاهان دارویی و مواد طبیعی است که از این گیاهان استخراج می شوند. با توجه به اینکه تاکنون مطالعه ای بر روی اثرات ضد دردی هسته خرمای شاهانی صورت نگرفته است هدف از انجام این مطالعه تعیین اثر ضد دردی عصاره هیدروالکلی هسته خرمای شاهانی جهرم بر درد حاد و مزمن و مقایسه با ایبوبروفن و مرفین در موش صحرایی نر می باشد.

مواد و روش ها: *این یک مطالعه حیوانی کاملا تصادفی است. 64 سر موش صحرایی نر بالغ سالم از نژاد ویستار در 8 گروه 8 تایی تقسیم شدند:کنترل، شاهد(آب مقطر و الکل به نسبت 50:50)، تجربی1 (فرمالین 5/2 درصد)، تجربی2 (مرفین با غلظت 10 میلی گرم)، تجربی3 (ایبوبروفن با غلظت 6 میلی گرم)، تجربی4 (عصاره هیدروالکلی هسته خرما با دوز(250 mg/kg، تجربی6 (عصاره هیدروالکلی هسته خرما با دوز(500 mg/kg، تجربی6 (عصاره هیدروالکلی هسته خرما با دوز (1000 mg/kgعصاره به روش گاواژ، مورفین و ایبوبروفن به روش درون صفاقی و نیم ساعت قبل از انجام تست های درد (تست فرمالین و Tail Flick) به حیوانات خورانده و تزریق شد. فرمالین به روش زیرجلدی به حیوانات تزریق شد. نتایج توسط نرم افزار آماری SPSS و تست توکی و آزمون نان پارامتریک کروسکال-والیس در سطح آماری 5 درصد تجزیه و تحلیل گردید.*

نتایج: نتایج این مطالعه نشان داد که به دنبال تزریق مورفین و ایبوبروفن، نمره درد حاد و مزمن نسبت به گروه های شاهد و دریافت کننده فرمالین کاهش می یابد. همچنین نمره درد حاد و مزمن در گروه های دریافت کننده عصاره هسته خرما با غلظت 500 و 1000 میلی گرم کاهش معنی داری را نسبت به گروه های شاهد و دریافت کننده فرمالین و افزایش معنی داری را نسبت به گروه های مورفین و ایبوبروفن نشان دادند. در مقایسه گروه های دریافت کننده عصاره هسته خرمای شاهانی با همدیگر مشخص شد که بیشترین اثر مربوط به دوز 1000 می گرم می باشد.

بحث و نتیجه گیری: نتایج این مطالعه نشان داد که عصاره هیدروالکلی هسته خرمای شاهانی می تواند به صورت وابسته به دوز نمره درد حاد و مزمن را در موش های صحرایی نر کاهش دهد.

G-1498

Evaluation of the diagnostic value of CT scan compared to ultrasonography in patients presenting with abdominal pain to Imam Ali Hospital in Bojnurd from 2016 to 2021

Faeze Hajeb [1] ℗, Mohammadamin Younesi Heravi [1] ©, Maryam Tavakoli [1]

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مقدمه: درد شكم يك شكايت شايع در موارد مراجعه كننده به بخش اورژانس است. تشخيص افتراقي درد شكم طيف گستردهاى از اختالالت خوشخيم تا جراحي فورى را دربرميگيرد. مطالعه حاضر با هدف بررسي ارزش تشخيصي سيتياسكن در مقايسه با سونوگرافي در بيماران مراجعهكننده با درد شكم بوده است.

مواد و روش ها:

اين مطالعه مقطعي گذشته نگر، بر روى بيماران با درد شكم كه در بازهى سالهاى 1395 تا 1400 به بيمارستان امام علي (ع) بجنورد مراجعه كردهاند و تحت سونوگرافي و سيتي اسكن قرار گرفتهاند، از پرونده استخراج شده و براساس سن بيمار، جنسيت، سابقهى بيمارىهاى قبلي و يافتههاى سونوگرافي و سيتي اسكن، نتايج آزمايشهاى تشخيصي و عالئم باليني بيمار از جمله محل درد، شدت درد، پيشرونده يا پسرونده بودن، تشخيص نهايي و عملي مورد ارزيابي آمارى قرار گرفت.

نتايج: نتايج مطالعه حاضر حاكي از آن است كه به طوركلي، حساسيت 47 درصد، ويژگي 93 درصد و صحت تشخيصي 76 درصد بوده است. بيشترين حساسيت نيز در تشخيص سيستم صفراوى و كمترين نيز مربوط به استخوان، پانكراس و عروق بوده است.

بحث و نتيجه گيرى:

بيشترين حساسيت در تشخيص سيستم صفراوى (80%) و كمترين نيز مربوط به استخوان (0%)، پانكراس و عروق بوده است. همچنين ويژگي در استخوان، كالكشن، طحال، كبد، ريه و عروق بيشترين (100%) و در روده، معده و مزانتر كمترين (98%) بوده است. صحت تشخيصي نيز در مايع آزاد، سيستم صفراوى، استخوان، كالكشن، طحال، كبد، ريه و عروق بيشترين (99%) و كمترين آنها مربوط به مجموعه روده، معده و مزانتر (87%) مياشد.

G-1502

بررسی ارتباط رفتارهای ارتقاء دهنده سلامت با علائم یائسگی در زنان یائسه شهر نیشابور درسال 1401

سودابه زروکانلو [1] ℗, زهرا رحیمی [1], زهرا عرب برزو [2], شایسته شیرزادی [3] ©

[1] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی نیشابور، نیشابور، ایران

[2] گروه امار و اپیدمیولوژی، دانشکده بهداشت، دانشگاه علوم پزشکی زاهدان، زاهدان، ایران

[3] مرکز تحقیقات سلامت سالمندی، دانشگاه علوم پزشکی نیشابور، نیشابور، ایران

مقدمه:
یائسگی پدیده ای زیست روانی اجتماعی شامل گذار در زندگی زن از باروری به ناباروری است. در این دوران زنان علائم مختلف فیزیکی، فیزیولوژیکی، روانی و جنسی را تجربه می کنند. این تغییرات و علائم سلامت زنان را تحت تاثیر قرار می دهد و کیفیت زندگی آنها را به طور قابل توجهی کاهش می دهد. یکی از مهمترین عوامل موثر برسلامت زنان در دوران یائسگی سبک زندگی سالم است. سبک زندگی ناسالم زنان یائسه منشاء بسیاری از عوارض جانبی جدی این دوره است. این در حالی است که زنان، دانش کافی در خصوص رفتارهای ارتقاء دهنده سلامت ندارند و آموزش های مدون و ضروری را در این زمینه دریافت نمی‌کنند. لذا مطالعه حاضر با هدف بررسی ارتباط رفتارهای ارتقاء دهنده با علائم یائسگی در زنان انجام شد.

مواد و روش ها:
این مطالعه مقطعی در زنان 45 تا 60 سال یائسه در سال 1401 در نیشابور انجام شد. روش نمونه گیری طبقه ای و حجم نمونه 300 نفر بود. داده ها با استفاده از پرسشنامه مشخصات دموگرافیک و سبک زندگی ارتقاء دهنده سلامت که شامل شش بعد رشد معنوی، مسئولیت‌پذیری سلامتی، فعالیت فیزیکی، تغذیه، روابط بین فردی و مدیریت استرس بود جمع آوری شد. تجزیه و تحلیل داده ها با استفاده از آمار توصیفی و استنباطی(رگرسیون خطی چندگانه) و نرم افزار SPSS 22در سطح معنی داری 05/0 انجام شد.

نتایج: میانگین سن یائسگی 26/3 ± 4/49 بود. اکثر افراد بیسواد، خانه دار، متاهل و دارای 3 فرزند و بیشتر بودند و سطح اقتصادی متوسط داشتند. 7/65 درصد آنان حداقل یک بیماری مزمن داشتند. براساس نتایج بین نمره کل رفتارهای ارتقاء دهنده سلامت و علائم یائسگی ارتباط منفی معنی دار وجود داشت. همچنین درخصوص زیرمجموعه های رفتارهای ارتقاء دهنده سلامت بین نمره فعالیت فیزیکی، تغذیه، رشد معنوی و مدیریت استرس با علائم یائسگی ارتباط منفی معنی دار وجود داشت(.(P 0.05

بحث و نتیجه گیری: افرادی که نمره رفتارهای ارتقاء دهنده سلامت آنها پایینتر بود علائم یائسگی در آنها بیشتر بود و با کاهش نمره فعالیت فیزیکی، تغذیه، مدیریت استرس و رشد معنوی، علائم یائسگی افزایش پیدا می کرد. نتایج نشان دهنده اهمیت داشتن سبک زندگی سالم در کاهش و کنترل علائم یائسگی را نشان داد. بنابراین نیاز است آموزش و آگاهسازی درخصوص اهمیت سبک زندگی ارتقاء دهنده سلامت برای زنان یائسه در اولویت قرار گیرد.

G-1506

بررسی رفتارهای ارتقاء دهنده سلامت وعوامل جمعیت شناختی مرتبط با آن در زنان یائسه شهر نیشابور در سال ۱۴۰۱

سودابه زروکانلو [1] ℗, زهرا رحیمی [1], زهرا عرب برزو [2], شایسته شیرزادی [3] ©

[1] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی نیشابور، نیشابور، ایران

[2] گروه امار و اپیدمیولوژی، دانشکده بهداشت، دانشگاه علوم پزشکی زاهدان، زاهدان، ایران

[3] مرکز تحقیقات سلامت سالمندی، دانشگاه علوم پزشکی نیشابور، نیشابور، ایران

مقدمه:

رفتارهای ارتقاء دهنده سلامت یکی از عوامل اصلی تعیین کننده سلامتی است و شامل شش بعد رشد معنوی، مسئولیت‌پذیری سلامتی، فعالیت فیزیکی، تغذیه، روابط بین فردی و مدیریت استرس می باشد. یائسگی اگرچه یک فرایند فیزیولوژیک است اما باعث بسیاری از مشکلات جسمی و تغییرات روانی در زنان میشود، بنابراین توجه به رفتارهای ارتقاء دهنده سلامت در این دوره مهم است. لذا مطالعه حاضر با هدف بررسی رفتارهای ارتقاء دهنده سلامت و عوامل جمعیت شناختی مرتبط با آن در زنان یائسه انجام شد.

مواد و روش ها:

این مطالعه مقطعی در زنان 45 تا 60 سال یائسه در سال 1401 در نیشابور انجام شد. روش نمونه گیری طبقه ای و حجم نمونه 300 نفر بود. داده ها با استفاده از پرسشنامه مشخصات دموگرافیک و سبک زندگی ارتقاء دهنده سلامت جمع آوری شد. تجزیه و تحلیل داده ها با استفاده از آمار توصیفی و استنباطی(رگرسیون خطی چندگانه) و نرم افزار SPSS 22در سطح معنی داری 05/0 انجام شد.

نتایج:

میانگین سن یائسگی 26/3 ± 4/49 بود. اکثر افراد بیسواد، خانه دار، متاهل و دارای 3 فرزند و بیشتر بودند و سطح اقتصادی متوسط داشتند. 7/65 درصد آنان حداقل یک بیماری مزمن داشتند. نمره کل رفتارهای ارتقاء دهنده سلامت اکثر افراد (111 نفر، 37%) در سطح متوسط بود. در اکثر افراد میانگین نمره تغذیه (112 نفر، 37.7 درصد)، روابط بین فردی(121 نفر، 41.3درصد)، رشد معنوی (128، 42.7 درصد) و مسئولیت پذیری در برابر سلامت (103 نفر، 34.3 درصد) در سطح ضعیف و نمره فعالیت فیزیکی (102 نفر، 34 درصد) و مدیریت استرس (123 نفر، 41 درصد) در سطح متوسط بود. میانگین نمره رفتارهای ارتقاء دهنده سلامت زنان خانه دار به طور معناداری بالاتر از زنان شاغل و زنان با سطح اقتصادی ضعیف به طور معناداری کمتر از افراد با سطح اقتصادی خوب بود.

بحث و نتیجه گیری:

براساس نتایج اکثر افراد از نظر وضعیت تغذیه، روابط بین فردی، رشد معنوی و مسئولیت پذیری در برابر سلامت در سطح ضعیف قرار داشتند که نیازمند انجام مداخله و توجه بیشتر درخصوص این رفتارها می باشد. وضعیت اقتصادی از عوامل تاثیرگذار بر سلامت افراد می باشد و زنان شاغل نیازمند توجه بیشتر نسبت به وضعیت سلامت خود می باشند. مداخلات آموزشی درخصوص آگاه سازی زنان از اهمیت داشتن سبک زندگی ارتقاء دهنده سلامت در دوران یائسگی ضروری است.

G-1512

بررسی رفتارهای ارتقاء دهنده سلامت دختران و پسران نوجوان شهر فیروزه در سال 1401

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[2] گروه امار و اپیدمیولوژی، دانشکده بهداشت، دانشگاه علوم پزشکی زاهدان، زاهدان، ایران

[3] مرکز تحقیقات سلامت سالمندی، دانشگاه علوم پزشکی نیشابور، نیشابور، ایران

مقدمه:
نوجوانی به عنوان دوره مهم و حیاتی از زندگی با تغییرات جسمی، عاطفی و تکاملی همراه بوده، این تغییرات و تاثیر آن در نوع رژیم غذایی، خواب، ورزش و فعالیت بدنی و کنترل وزن و ... رفتارهای نوجوان را تشکیل میدهد که تعیین کننده سبک زندگی می باشد. نوجوانان به اندازه بزرگسالان، بهداشت را موضوع با اهمیتی در زندگی تلقی نمی کنند. نگاه آنها به دنیا با نگاه بزرگسالان فرق می کند و اغلب رفتارهایی را انجام می دهند که معمولا بر سلامت آنها تاثیر منفی دارد و آنها را در معرض خطر بیماری های تهدید کننده زندگی قرار می دهد. لذا مطالعه حاضر با هدف بررسی رفتارهای ارتقاء دهنده سلامت دختران و پسران نوجوان انجام شد.

مواد و *روش ها*:
این مطالعه مقطعی در پسران و دختران نوجوان (12 تا 19 سال) در سال 1401 در شهر فیروزه انجام شد. روش نمونه گیری طبقه ای و حجم نمونه 500 نفر بود. داده ها با استفاده از پرسشنامه مشخصات دموگرافیک و و سبک زندگی ارتقاء دهنده سلامت شامل شش بعد رشد معنوی، مسئولیت‌پذیری سلامتی، فعالیت فیزیکی، تغذیه، روابط بین فردی و مدیریت استرس جمع آوری شد. تجزیه و تحلیل داده ها با استفاده از آمار توصیفی و استنباطی(تی مستقل) و نرم افزار SPSS 22در سطح معنی داری 05/0 انجام شد.

نتایج: میانگین سنی دختران 14.56±1.32 و میانگین سنی 15.25±1.66 بود. میانگین رفتارهای ارتقاء دهنده سلامت دختران 25.49± 137.55 و پسران 63.25± 141.63 بود که از نظر آماری اختلاف بین دو گروه معنا دار نبود. در هردو گروه بالاترین میانگین مربوط به رشد معنوی بود (پسران 5.44±27.9، دختران 5.72±27.7). کمترین میانگین نمره در پسران مربوط به مسئولیت پذیری در برابر سلامت 5.76±20.8 و مدیریت استرس 2.54±21.6 در رتبه بعدی قرار داشت. در دختران کمترین میانگین نمره مربوط به فعالیت فیزیکی 5.52±19.09 و مسئو لیت پذیری در برابر سلامت 5.34±20.5در رتبه بعدی قرار داشت. همچنین براساس نتایج، اختلاف میانگین نمره فعالیت فیزیکی در دو گروه از نظر آماری معنادار بود.

بحث و نتیجه گیری: براساس نتایج مسئولیت پذیری در برابر سلامت در پسران و فعالیت فیزیکی در دختران پایینترین میانگین نمره را داشتند که هر دو رفتار می تواند سلامت نواجوانان را در معرض خطر قرار دهد. شناخت رفتار های ناسالم در نوجوانی و برنامه ریزی مداخلات، ارائه آموزش های لازم و صحیح قبل از شروع و یا تثبیت آن ها و همچنین آگاه سازی نوجوانان در این خصوص ضروری است.

G-1548

Future research in students Osce test: the role of artificial intelligence

علی جلوداریان [1] ©, محمد اسماعیلی [1] Ⓟ, ناهید رجایی [2]

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مقدمه:

در آموزش پزشکی، آزمون آسکی به عنوان یک روش اندازه گیری صلاحیت بالینی قابل قبول در دنیا استفاده شده که البته با چالش های متعددی از جمله ایجاد استرس زیاد، صرف هزینه و زمان زیاد و به کار گیری نیروی انسانی انبوه همراه است. هوش مصنوعی در پزشکی استفاده از مدل‌های یادگیری ماشینی برای جستجوی داده‌های پزشکی برای کمک به بهبود نتایج سلامت است. به لطف پیشرفت های اخیر در علوم کامپیوتر و انفورماتیک، هوش مصنوعی به سرعت به بخشی جدایی ناپذیر از مراقبت های بهداشتی مدرن تبدیل شده و توجه پژوهشگران به استفاده از این روش، در آزمون آسکی جلب شده است.در این مطالعه مروری نقش هوش مصنوعی در کاهش چالش ها و بهبود فرآیند این آزمون می پردازد.

مواد و روش ها:

در این مطالعه مروری ، کلید واژه های آسکی، هوش مصنوعی و آینده پژوهی در پایگاه های اطلاعاتی Google Scholar، Pub Med، Sid،از 2019 تا سال 2023 جستجو و تعداد 20 مقاله یافت شد که از این تعداد 8 مورد، برحسب ارتباط با موضوع، وارد مطالعه شد.

نتایج:

پلتفرم های Google، zoom، Microsoftو ... ، سخت افزار ها، نرم افزار ها و سیستم های سلامت از راه دور مبتنی نمونه هایی از هوش مصنوعی که در تنظیمات پزشکی، پشتیبانی تصمیم گیری بالینی و تجزیه و تحلیل تصویربرداری کاربرد دارند. هوش مصنوعی سامانه هایی با عملکردی مشابه مغز انسان می باشند که می توانند با درک شرایط پیچیده و شبیه سازی فرآیندهای فکری و استدلالی به با روش حل مسئله به مباحث پاسخ می دهد. از آنجایی که آزمون آسکی بر مهارت حل مسئله، تفکر انتقادی و تصمیم گیری تاکید دارد؛ هوش مصنوعی می تواند نقش بسزایی در پیش برد اهداف این آزمون داشته باشد. این روش می تواند سرعت بالا و دقت زیاد را چاشنی کار سازد و با نگاهی بدون تعصب، بستری امن در آموزش و ارزیابی برای دانشجویان فراهم آورد .

بحث و نتیجه گیری:

هوش مصنوعی تحولی عظیم در علم پزشکی بوده و اکنون در دنیای آموزش نتایج خوبی را به همراه داشته است. با توجه به فواید این روش در بحث آزمون های آسکی، توصیه می شود که مطالعاتی بیشتری در این زمینه صورت گیرد و برنامه های اموزشی جهت آشنایی اساتید با این روش، تدوین شود .

G-1579

آینده‌پژوهی مدیریت مراقبت‌های اولیه سلامت در ایران با رویکرد سناریونویسی

علی شیبانی زاده [1] ℗، رضا دهنویه [2]، محمدحسین مهرالحسنی [2]، محسن حسامپور [1]، ملیکا سلیمی [1]، سجاد خسروی [3] ©

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[2] دانشگاه علوم پزشکی کرمان، کرمان، ایران

[3] دانشگاه علوم پزشکی بم، بم، ایران

مقدمه:
نظام مراقبت‌های اولیه سلامت در ایران نقش گسترده‌ای در ارتقا سطح سلامت جامعه در دهه‌های گذشته داشته است. اما امروزه با توجه به تغییرات صورت گرفته در دنیا، عوامل متعددی بر عملکرد این برنامه تأثیرگذار می‌باشند. هدف پژوهش حاضر آینده‌پژوهی مدیریت مراقبت‌های اولیه سلامت با رویکرد سناریونویسی می‌باشد.

مواد و *روش ها:*
پژوهش حاضر یک مطالعه آینده‌پژوهی با رویکرد اکتشافی است که با استفاده از روش سناریونویسی شبکه جهانی کسب و کار ((GBNانجام پذیرفته است. بنابراین این پژوهش از نظر هدف، اکتشافی و از لحاظ روش اجرا، ترکیبی از روش‌های کمی و کیفی (ترکیبی) و از بعد نتایج، پژوهشی کاربردی است. پژوهش حاضر شامل پنج فاز بود. فاز اول برای شناسایی چالش‌ها و نقاط ضعف، فاز دوم تعیین عوامل درونی و بیرونی مؤثر بر PHC، فاز سوم شناسایی مهم‌ترین عوامل کلیدی و پیشران‌ها، فاز چهارم تدوین سناریوها و فاز پنجم به‌منظور شناسایی استراتژی‌های پابرجا انجام پذیرفت. مشارکت‌کنندگان در این پژوهش با روش نمونه‌گیری مبتنی بر هدف و با حداکثر تنوع انتخاب شدند. از روش‌های مرور نظام‌مند، مطالعه کیفی، تحلیل STEEP، پیمایشی، سناریونویسی و نظرات خبرگان در مراحل مختلف پژوهش استفاده شد.

نتایج: با بررسی چالش‌ها و نقاط ضعف برنامه مراقبت‌های اولیه سلامت ایران از طریق یک مطالعه مرور نظام‌مند و بررسی عوامل تأثیرگذار بر آینده مراقبت‌های اولیه سلامت با انجام یک مطالعه کیفی 90 عامل کلیدی و پیشران تأثیرگذار بر آینده مراقبت‌های اولیه سلامت ایران شناسایی گردیدند. سپس بعد از انجام مرحله پیمایشی، مهم‌ترین این عوامل استخراج گردیدند (27 عامل). پس از رتبه‌بندی این عوامل بر اساس دو معیار میزان اهمیت و عدم قطعیت، دو عدم قطعیت کلیدی، وضعیت اقتصادی کشور و بهره‌گیری از فناوری‌های نوین، به‌عنوان محورهای تشکیل سناریو انتخاب گردیدند که بر اساس این دو عدم قطعیت چهار سناریو ایجاد گردید. در آخر بر اساس سناریوهای ترسیم‌شده، 9 استراتژی پابرجا بر اساس نظر خبرگان معرفی گردیدند.

بحث و نتیجه گیری:
سازمان جهانی بهداشت در چهلمین سالگرد شکل‌گیری مراقبت‌های اولیه سلامت بر اجرای صحیح و تکمیل برنامه مراقبت‌های اولیه سلامت در کشورها تأکید کرده‌اند. این امر نشان‌دهنده مؤثر و مفید بودن این برنامه می‌باشد. با این حال، پس از گذشت چهل سال از این برنامه در ایران، و علیرغم اینکه این برنامه در ایران موفقیت‌های زیادی در ارتقا سطح سلامت جامعه داشته است، امروزه با توجه تغییرات اجتماعی، اقتصادی، سیاسی و زیست‌محیطی دیگر پاسخگوی نیازهای جدید مردم نیست و نیاز به اصلاح ساختاری دارد. نتایج این پژوهش می‌تواند بر اساس آینده پیش روی مراقبت‌های اولیه سلامت، گزینه‌های معقولی برای مداخلات اثربخش در اختیار سیاستگذاران این حوزه قرار دهد.

G-1582

بررسی عوامل موثر بر عدم گزارش دهی خطا در پرستاران بیمارستان پاستور بم در سال 1401

علیرضا زارع زاده [1] ℗, اسما توکلی [1], زهرا مقصودی [1], علیرضا جعفری [1], علی شیبانی زاده [1], سجاد خسروی [2] ©

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مقدمه:
خطای پزشکی یکی از چالش های مهم و مورد توجه نظام سلامت است. توسعه سیستم های گزارش دهی و برطرف نمودن موانع گزارش دهی خطاها، جهت دستیابی به ارتقای کیفیت خدمات درمانی، ضروری است. هدف از این مطالعه شناسایی عوامل موثر بر عدم گزارش دهی خطاهای پزشکی توسط پرستاران بیمارستان پاستور بم بود.

مواد و روش ها:
در این مطالعه تحلیلی که به شیوه مقطعی انجام شد، پرسشنامه استاندارد که شامل دو بخش اصلی بود، سوالات دموگرافیک و سوالات اصلی(سوالات مرتبط با موانع فردی، سازمانی، فرهنگی و آموزشی) بین کلیه پرستاران بخش‌های مختلف بیمارستان(200 نفر)، توزیع شد. در این پژوهش از آماره‌های توصیفی برای تعیین مهم‌ترین دلایل عدم گزارش دهی خطاها استفاده شد و آزمون‌های تحلیلی نظیر آنالیز واریانس یک طرفه و تی مستقل برای تعیین رابطه بین عدم گزارش‌دهی خطاها با عوامل دموگرافیک پرستاران به کار گرفته شد. تحلیل داده‌ها با استفاده از نرم‌افزار SPSSنسخه 22 انجام گرفت.

نتایج: بر طبق یافته های پژوهش، پرستاران مورد مطالعه اظهار داشتند که ترس از پیگیری و مجازات کیفری، ترس نسبت به از دست دادن شغل، پایین بودن توانایی کارکنان در تشخیص رخداد یک خطا، وقت و زمان زیادی که صرف مستند سازی برای گزارش خطا می شود و عقیده به اینکه گزارش دادن تاثیر چندانی در بهبود کیفیت مراقبت ندارد، مهمترین موانع گزارش خطا بودند. هم چنین از میان موانع گزارش خطا مانع فردی، مهمترین مانع در عدم گزارش خطا و مانع آموزشی، کم اهمیت ترین مانع بود. طبق یافته های پژوهش، از میان پرستاران، پرستاران با مدرک دیپلم و پرستاران با سابقه کار بالای 15 سال افرادی بودند که خطا را گزارش نمی کردند و پرستاران با مدرک کارشناسی ارشد و پرستاران با سابقه کار کمتر از 5 سال میزان خطا را بیشتر از بقیه پرستاران گزارش می کردند.

بحث و نتیجه گیری:
ارتباط مؤثر و حمایت کافی مدیران از پرستاران در کنار وجود سیستم ثبت گزارش خطای کارآمد و استفاده مؤثر از گزارش‌های به‌دست‌آمده در افزایش گزارش خطاهای پزشکی مؤثر است.

G-1589

بر تشنج القا شده بوسیله پنتیلن تترازول در موش کوچک Artemisia Sieberiبررسی اثر سه دوز مختلف عصاره متانولی درمنه دشتی

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مقدمه:

تقریباً 10٪ از افراد حداقل یک تشنج را در طول زندگی تجربه می کنند. تشنج یک رویداد جدی است و نیاز به ارزیابی و مدیریت دقیق دارد. با توجه به گزارشات قبلی مبنی بر اثرات درمنه دشتی بر سیستم عصبی، هدف از این مطالعه بررسی اثرات دوزهای مختلف عصاره درمنه دشتی بر تشنج ناشی از پنتیلن تترازول می باشد.

مواد و روش ها:

32سر موش نر به چهار گروه تقسیم شدند. گروه PTZ، نرمال سالین را به صورت داخل صفاقی به مدت سه روز روز دریافت کرد و روز سوم نیم ساعت پس از تزریق نرمال سالین، پنتیلن تترازول با دوز 100 میلی گرم بر کیلوگرم دریافت کردند. گروههای تجربی دوزهای 100، 200 و 300 میلی گرم بر کیلوگرم عصاره اتانولی درمنه دشتی را به مدت 3 روز متوالی دریافت کردند و نیم ساعت بعد از دوز سوم پنتیلن تترازول را با دوز 100 میلی گرم بر کیلوگرم دریافت کردند. به منظور بررسي رفتاری فعالیت تشنجي در روز سوم حیوانات به مدت یك ساعت مورد مشاهده قرار گرفتند.

نتایج:

در بررسی های انجام شده دیده شد که عصاره اتانولی گیاه Artemisia Sieberiاثرات ضدتشنجی قابل ملاحظه ای در دوزهای 200 و 300 mg/kgدارد.

بحث و نتیجه گیری:

با توجه تاثیر مثبت و قابل ملاحظه عصاره اتانولی Artemisia Sieberiبر کاهش نمره تشنج و هم چنین افزایش تاخیر شروع تشنج، بررسی دیگرهای جنبه های درمانی نورولوژیک و سایکولوژیک این گیاه میتواند مورد توجه باشد.

G-1591

The Effect of Lycopene on gene expression and lipoprotein lipase (LPL) in wistar male rats

زهرا خلج [1] ℗، کیمیا کارگرفرد [1]، مریم بهرامی غیاث آبادی [1]، وحید رحمانیان [2]، حسین کارگر جهرمی [2] ©

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مقدمه:

اضافه وزن ششمین عامل خطرناک مهم در ایجاد بیماری در سراسر جهان است. 1/1 میلیارد بزرگسال و 10 درصد از کودکان در حال حاضر به عنوان اضافه وزن یا چاق طبقه بندی می شوند. لیکوپن یک کاروتنوئید با خاصیت آنتی اکسیدانی قوی است. هدف مطالعه حاضر بررسی اثر لیکوپن بر بیان ژن و فعالیت لیپوپروتئین لیپاز در موش های صحرایی نر نژاد ویستار بود.

مواد و روش ها:

در این مطالعه تجربی و تصادفی از 48 سر موش صحرایی نر نژاد ویستار با میانگین وزنی200-180 گرم و سن 7 تا 8 هفتگی در شرایط استاندارد استفاده شد. حیوانات در 6 گروه 8 تایی شامل کنترل، تجربی 1 (تغذیه با غذای نرمال و دریافت لیکوپن 5 میلی گرم)، تجربی 2 (تغذیه با غذای نرمال و دریافت لیکوپن 10 میلی گرم)، تجربی 3 (کنترل پرچرب= تغذیه با غذای پرچرب به مدت 2 ماه)، تجربی 4 (تغذیه با غذای پرچرب و دریافت لیکوپن 5 میلی گرم)، تجربی 5 (تغذیه با غذای پرچرب و دریافت لیکوپن 10 میلی گرم) تقسیم شدند. لیکوپن از شرکت مرک آلمان خریداری شد. پس از گذشت 28 روز از دریافت عصاره، از حیوانات خونگیری شد و بافت چربی اپیدیدیم جدا شد. بافت چربی در محلول RNA later و میکروتیوب RNAase Free قرار داده شد و سپس RNA بر اساس دستورالعمل کیت یکتاتجهیز استخراج شد. سپس cDNA سنتز

نتایج:

میانگین سرمی آنزیم لیپوپروتئین لیپاز و میانگین بیان ژن لیپوپروتئین لیپاز در بافت چربی اپیدیدیم در گروه های سالم دریافت کننده لیکوپن (تجربی 1و2) نسبت به گروه کنترل افزایش معنی داری را نشان داد. میانگین سرمی آنزیم لیپوپروتئین لیپاز و میانگین بیان ژن در بافت چربی اپیدیدیم در گروه های پرچرب دریافت کننده لیکوپن (تجربی 4و 5) میلی گرم افزایش معنی داری نسبت به گروه کنترل پرچرب (تجربی3) در سطح آماری 5 درصد نشان داد. بیشترین اثر مربوط به غلظت10میلی گرم لیکوپن بود.

بحث و نتیجه گیری:

لیکوپن یک کاروتنوئید با خاصیت آنتی اکسیدانی و ضدچربی قوی، میانگین بیان ژن لیپوپروتئین لیپاز بافت چربی اپیدیدم و فعالیت سرمی آنزیم لیپوپروتئین لیپاز موش های صحرایی نر بالغ را به طور چشمگیری افزایش داد.

G-1596

Explaining Nursing Students Understanding of Teachers Professional Competence: Qualitative Content Analysis

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مقدمه:
یکی از عوامل مهم در یادگیری و موفقیت دانشجویان، صلاحیت حرفه ای اساتید است. هدف این مطالعه تبیین درک دانشجویان پرستاری از صلاحیت حرفه ای اساتید می باشد .

مواد و روش ها:
این پژوهش کیفی با استفاده از نمونه¬گیری مبتنی بر هدف با 12 دانشجوی پرستاری در سال 1401 در دانشگاه علوم پزشکی مازندران انجام شد. برای جمع¬آوری داده ها از مصاحبه های نیمه ساختار تا زمان رسیدن به اشباع استفاده گردید. برای آنالیز داده ها از روش ایلو و کینگاز 2008 استفاده شد.

نتایج:
از تحلیل داده ها سه مضمون اصلی شامل صلاحیت آموزشي (به روزبودن دانش اساتید ، تخصص داشتن در رشته، قادر به انتقال مطلب بودن)، صلاحیت اخلاقی (الگوي رفتاري بودن، ظاهر آراسته، تفاوت قائل نبودن بین دانشجویان)، مدیریت کلاس (کلاس داري، داشتن طرح درس) استخراج شد

بحث و نتیجه گیری:
یافته ها بیانگر سه ویژگی آموزشي و اخلاقي و مدیریت کلاس يك استاد حرفه اي در پرستاري تبیین شد .بکار گیري این ویژگي در مراکز اموزشي دانشگاه هاي علوم پزشکي، نه تنها در بدو ورود بلکه در طول خدمت اساتید می تواند کاربرد داشته باشد.

G-1597

The views of the elderly in Golestan province regarding the indicators of the elderly-friendly city in 2023.

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زمینه و هدف: ایجاد شهرها و فضاهای دوست دار سالمندی از چالش های اساسی و مهم در دنیای امروزی می باشد. هدف از این پژوهش تعیین دیدگاه سالمندان استان گلستان در خصوص شاخص های شهر دوستدار سالمند می باشد.

روش کار: این پژوهش یک مطالعه مقطعی با رویکرد توصیفي تحلیلی می باشد. جامعه مورد پژوهش سالمندان 60 سال به بالا در شهرهای استان گلستان در سه بخش مناطق مرکزی شامل شهر گرگان، مناطق شرق شامل شهر گنبد، مناطق غرب شامل شهر کردکوی می باشد. حجم نمونه 310 نفر به روش در نمونه گیری در دسترس انتخاب شدند. ابزار گردآوری داده‌ها در این مطالعه شامل فرم ثبت اطلاعات جمعیت شناسی و پرسشنامه شهر دوستدار سالمند (AFبود. این پرسشنامه شامل 102 گویه در 8 حیطه بوده که در این مطالعه 3 حیطه از مولفه‌های پرسشنامه شامل؛ مشارکت اجتماعی (8 گویه) (دامنه امتیاز 24-8)، تکریم و تامین اجتماعی (9 گویه) (دامنه امتیاز 27-9) و مشارکت شهروندی و اشتغال (8 گویه) (دامنه امتیاز 24-8) مورد استفاده قرار گرفت.

یافته ها: میانگین سنی افراد شرکت کننده در این مطالعه 14/78±23/10 سال بود که 67 درصد شرکت کنندگان مرد و بقیه زن بودند. اکثریت سالمندان (78/90 درصد) سن بین 65 تا 75 سال داشتند. از بین 3 مولفه مورد بررسی، مولفه کریم و تامین اجتماعی بیشترین میانگین را داشت (30/61±04/10) و بعد از آن مولفه های مشارکت اجتماعی با میانگین نمره (03/15± 09/39) و مشارکت شهروندی و اشتغال (20/09± 08/32) قرار داشتند. بین جنس و تاهل با مولفه مشارکت اجتماعی ارتباط معنی داری مشاهده شد.(P=0.001)

نتیجه گیری: یافته های این مطالعه نشان داد که هیچ یک از 3 مولفه ی بررسی شده از شاخص های شهرهای دوستدار سالمند در استان گلستان در حد استاندارد نبودند، بنابراین لازم است مدیران سازمان های متولی سالمندی برای رسیدن به شرایط مطلوب تلاش بیشتری انجام دهند.

G-1599

A rare case of intestinal dilatation due to bezouar after open heart surgery (CABG)

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زمینه و هدف: عوارض گوارشی بعد از جراحی قلب باز شیوع کم دارد اما می تواند منجر به جراحی مجدد در دوره بعد از عمل شود. هدف از این مطالعه گزارش یک مورد نادر اتساع روده، بزوار بعد از عملCABGمی باشد

گزارش مورد: بیمارخانمی76ساله با شکایت درد قفسه سینه،تنگی نفس و تعریق به اورژانس بیمارستان مراجعه کرد.طی گزارش آنژیوگرافی عروق قلبی دچار انسداد شده بود.عملCABGبرای وی انجام شد. بیمار بعد از عمل دچار عارضه تهوع و استفراغ شدو توانای ببلع خود را از دست داد. بدنبال تداوم شرایط بیمار، پس از انجام CT SCANتشخیص انسداد روده بعلت بزوار داده شد. بعد از جراحی باز شکمی توده خارج و بیمار با بهبودی از بیمارستان مرخص شد.

بر اساس یافته های گزارش یک مورد بزوار بعد از عمل جراحی قلب باز،کادر درمان باید احتمال عوارض گوارشی بخصوص انسداد روده را در بیمارانی که تهوع، استفراغ مکرر و عدم بلع دارند بدهند. بنابراین پس از جراحی های قلب جهت اطمینان از تشخیص زود هنگام و اتخاذ درمان مناسب برای جلوگیری از عوارض بیشتر و پیامدهای نامطلوب به اهمیت بروز بزوار توجه نمایند.

G-1651

Relationship Between Health-Oriented Lifestyle Components and Socioeconomic Status in Male Inmate of Rasht County Prisons

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مقدمه: ارتکاب جرم و جنایت یک انحراف اجتماعی است و به عنوان یک مساله اجتماعي تاثيرات نامطلوبي بر روي جامعه بر جاي مي گذارد. پیشگیری از جرم همواره یکی از مباحث عمده و مهم در زمینه حقوق کیفری بوده و همیشه به آن توجه ویژه‌ای می‌شود. از آنجایی‌که سبک زندگی سلامت محور شامل وضعیت جسمانی، فعالیت بدنی، مدیریت استرس، رژیم غذایی سالم و پرهیز از مصرف دخانیات و الکل تاثیر مهمی بر سلامت روان دارد. بررسی سبک زندگی می‌تواند در شناخت عوامل و زمینه‌های جرم کمک‌کننده باشد و از این طریق امکان پیشگیری یا کاهش جرم فراهم شود. لذا بر آن شدیم که این مطالعه را با هدف بررسی مولفه‌های سبک زندگی سلامت محور در افراد ساکن در ندامتگاه شهرستان رشت انجام دهیم.

مواد و روش ها: *این مطالعه به‌صورت مقطعی – تحلیلی انجام گردید. 96 مرد با محدوده سنی 20 تا 60 سال که در سال 1401 ساکن ندامتگاه لاکان شهرستان رشت بودند، جامعه آماری این مطالعه را تشکیل می‌دادند. برای افراد مورد مطالعه پرسشنامه وضعیت اقتصادی- اجتماعی و پرسشنامه استاندارد سبک زندگی سالم شامل 70 گویه تکمیل گردید. برای بررسی رابطه بین مولفه‌های سبک زندگی با وضعیت اقتصادی- اجتماعی از نرم افزار SPSS27وآزمون‌های رگرسیون خطی و چندگانه استفاده گردید .*

نتایج: میانگین و انحراف معیار سن افراد مورد مطالعه (8 41±) سال بود. 66% افراد متاهل و 27% مجرد بودند. 56% دیپلم و زیر دیپلم و 39% تحصیلات دانشگاهی داشتند. پنجاه و شش درصد افراد مورد مطالعه شغل آزاد، 26% بیکار و13% کارمند بودند. میانگین امتیاز کل سبک زندگی سالم سلامت محور در افراد مورد مطالعه (38 ± 127.5) بود. نتایج رگرسیون ساده و چندگانه نشان داد که بین مولفه سلامت روانشناختی و سلامت اجتماعی با سن رابطه معنی‌داری وجود دارد P=.023، B=0.222 وافزایش سن و داشتن شغل ارتباط مثبت معنی‌داری با بعد سلامت معنوی داشت P=.035، B=1.47و متاهل بودن ارتباط مثبت و معنی‌داری با بعد اجتناب از داروها و مواد مخدر داشت P=.004، B=0.252 بقیه مولفه های سبک زندگی ارتباط معنی داری P=.038، B=1.55را با وضعیت اقتصادی- اجتماعی نشان ندادند.

بحث و نتیجه گیری: این مطالعه نشان داد که میانگین کل امتیاز سبک زندگی در افراد مورد مطالعه متوسط بود. افزایش سن باعث بهبود بعد سلامت روانشناختی، سلامت اجتماعی و سلامت معنوی گردید. متاهل بودن باعث اجتناب از دارو و مواد مخدر و داشتن شغل منجر به بهبود سلامت معنوی می‌شود.

G-1654

Effect of concurrent cognitive load on semantic processing of action and object in Persian adults who stutter

الهه علی برشی [1] Ⓟ، تبسم عظیمی [1] ©، زهرا سادات قریشی [2]، رضا نیلی پور [2]، مرتضی فرازی [2]، اکرم احمدی [1]، پدرام علی نیای اصلی [2] [1]

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مقدمه: لکنت رشدی، اختلال ارتباطی است که بر اثر گسیختگی در جریان گفتار ظاهر می‌شود. شواهد رفتاری و الکتروفیزیولوژیکال حاکی از وجود نقص در پردازش معنایی افراد دارای لکنت(PWS)است. یکی از جنبه‌های مهم در پردازش معنایی PWSتفاوت پردازش معنایی دو مقوله دستوری اسم و فعل می‌باشد. مطالعاتی که تاکنون به بررسی پردازش معنایی در بزرگسالان دارای لکنت(AWS)پرداختند عمدتا از محرک‌های اسمی استفاده کردند. شواهد عصب-روانشناختی نشان می¬دهد دو مقوله دستوری اسم و فعل در مناطق مختلفی از مغز پردازش می‌شوند. آسیب به لوب تمپورال، نقص در تولید اسم و آسیب به لوب فرونتال چپ، نقص در پردازش فعل را به دنبال دارد. جنبه دیگر مطالعه مقایسه سطوح مختلف بار شناختی و تاثیر آن بر پردازش معنایی AWSمی‌باشد. هدف مطالعه، بررسی اثر بار شناختی بر پردازش معنایی مقوله‌های اسم و فعل در بزرگسالان دارای لکنت و بدون لکنت فارسی زبان است.

مواد و روش ها: *29 بزرگسال دارای لکنت و 29فرد بدون لکنت که بر اساس سن(۲۵±۵ ساله)، جنس و تحصیلات، هماهنگ شده بودند، به تکلیف دوگانه کامپیوتری با ترکیب تکلیف قضاوت شباهت معنایی(SSJتکلیف اول) و تصمیم گیری تون(تکلیف دوم) پاسخ دستی دادند. در تکلیفSSJ، یک واژه و دو گزینه داده شد و فرد می‌بایست نزدیک‌ترین گزینه از نظر معنایی را انتخاب می‌کرد. در تکلیف تون، یک صدای زیر یا بم ارائه می‌شد و فرد درباره زیر و بمی آن قضاوت می‌کرد. سطوح بار شناختی از طریق تغییر فاصله زمانی بین شروع دو محرک(SOA)دستکاری شد. این تکلیف با زبان برنامه‌نویسی python ساخته و با استفاده از لپ تاپ اجرا شد. زمان پاسخ(RT)و درصد خطا برای هر تکلیف به طور مجزا بررسی و تحلیل شد. داده‌ها توسط نرم‌افزارSPSS.۲۱ تحلیل شد. آزمون‌های آماری شامل آزمون تی زوجی، تی مستقل و Mixed ANOVAبه منظور بررسی اثر تعاملی و اثر اصلی متغیرهای تکلیف، گروه، نوع محرک و SOAبود.*

نتایج: نتایج تحلیل نشان داد که AWSدر مقایسه با همتایان روان، در پردازش معنایی افعال و در وضعیت SOA کوتاه (نه طولانی)، آهسته‌تر عمل کردند($p<۰/۰۵$) ، اما این تفاوت در محرک‌های اسمی تمایل به معناداری نشان داد($p=۰/۰۸$). همچنین بزرگسالان دارای لکنت اثر بهای تداخل تکلیف دوگانه بیشتری در تکلیف دوم نشان دادند، اما این تفاوت وابسته به سطح SOAنبود($p≥۰/۰۵$)

بحث و نتیجه گیری: الگوی یافته‌ها پیشنهاد می‌کند AWSبرای پردازش محتوای حرکتی معنای افعال خصوصا در سطح بار شناختی زیاد، به دسترسی منابع شناخت مرکزی بیشتری نیاز دارند که احتمالا مرتبط با بدعملکردی مدار BGTCمغز در افراد دارای لکنت است. همچنین به نظر می‌رسد اتصالات شبکه معنایی در افراد دارای لکنت متفاوت است به طوری که توانایی حل رقابت معنایی و بازداری از فعالیت کلمات نامرتبط در آن‌ها کاهش یافته است.

G-1667

Health Risk Assessment of Swimming Beaches Microbial Pollution : A Case Study – Fereydunkenar, Northern Iran

هادی نیک نژاد [1] ℗, نیما کلوانی [2], علیرضا اعلا [3], رضا سعیدی [4], مهرنوش ابطحی [5], فتح الله غلامی بروجنی [6] ©

[1] دانشجوی دکتری بهداشت محیط، گروه مهندسی بهداشت محیط، دانشکده بهداشت و ایمنی، دانشگاه علوم پزشکی شهید بهشتی، تهران، ایران

[2] دانشجوی دکتری بهداشت محیط، گروه مهندسی بهداشت محیط، دانشکده بهداشت ، دانشگاه علوم پزشکی زنجان، زنجان، ایران

[3] دانشجوی دکتری بهداشت محیط، گروه مهندسی بهداشت محیط، مرکز تحقیقات علوم بهداشتی، کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی مازندران، ساری، ایران

[4] استادیار، گروه بهداشت، ایمنی و محیط زیست ((HSE، دانشکده ایمنی و بهداشت عمومی، دانشگاه علوم پزشکی شهید بهشتی، تهران، ایران

[5] استادیار، گروه مهندسی بهداشت محیط، دانشکده بهداشت و ایمنی، دانشگاه علوم پزشکی شهید بهشتی، تهران، ایران

[6] استادیار،گروه مهندسی بهداشت محیط، دانشکده بهداشت، دانشگاه علوم پزشکی مازندران، ساری، ایران

مقدمه: ارزیابی کمی خطر میکروبی (QMRA)به طور کلی برای ارزیابی مواجهه عمومی با عفونت های بیماری‌زا و ایجاد رابطه دوز- پاسخ انجام می‌شود. مطالعه حاضر با هدف ارزیابی کمی بیماری های گوارشی متعاقب مواجهه با E. coli و انتروکوک از طریق فعالیت های تفریحی در سواحل شهرستان فریدونکنار انجام شد.

مواد و روش ها: خطر عفونت زایی از طریق فعالیت های شنا با تمرکز بر کیفیت میکروبیولوژیکی آب ارزیابی شد و داده ها از طریق ارزیابی کمی خطر میکروبی (معادله 1 تا 3) تجزیه و تحلیل شدند.

$$D\_Pat = C\_Path \times V\_ing \quad (1)$$

$$pinf = 1 - [1 + D\_pat / N\_50 \ (2^{(1/\alpha)} - 1)]^{-\alpha} \quad (2)$$

$$p(n) = 1 - (1 - pinf)^{n} \quad (3)$$

Dpath دوز دریافتی E. coli یا انتروکوک است، Ving حجم آب بلعیده شده در طول شنا، و Cpath غلظت پاتوژن میکروبی مورد مطالعه در آب است. pinf احتمال خطر عفونت روزانه، α شیب پارامتریک، و N50 میانگین دوز ایجاد عفونت است. IP(n) احتمال عفونت سالانه و n زمان قرار گرفتن در معرض است

نتایج: میانگین خطر عفونت روزانه و سالانه E. coli برای کودکان 01/0 و 69/0 و برای بزرگسالان 005/0 و 41/0 بود. همچنین میانگین خطر ابتلا به عفونت روزانه و سالانه آنتروکوک برای کودکان 13/0 و 1 و برای بزرگسالان 07/0 و 1 بود. خطر عفونت زایی انتروکوک بیشتر از E. coli بود

بحث و نتیجه گیری: این مطالعه از E. coli و انتروکوک روده ای به عنوان مطالعه موردی برای نشان دادن خطر سلامتی پاتوژن ها استفاده کرد. نتایج QMRA اطلاعاتی را در مورد کیفیت آب های تفریحی، خطرات بهداشتی در جمعیت مورد مطالعه ارائه می دهد. همچنین نتایج به دست آمده از خطرات احتمالی در سواحل تفریحی می تواند به عنوان راهنمای مدیریت تفریحی آب در ایران مورد استفاده قرار گیرد.

G-1686

Investigating the effect of gallic acid on the serum concentration of resistin hormone in normal and obese male rats

سبحان تهمتن دوقزلو [1] ℗، حسین کارگر جهرمی [2]، علی رحمانیان [1]، زهرا کارگر جهرمی [2]، حسنعلی عابدی [2] ©

[1] کمیته تحقیقات دانشجویي، دانشگاه علوم پزشكي جهرم، جهرم، ایران

[2] مرکز تحقیقات بیماریهاي غیر واگیر، دانشگاه علوم پزشكي جهرم، جهرم، ایران

مقدمه: در طی چند دهه ی گذشته، چاقی به مرور به یک مشکل فزاینده بهداشت عمومی در تمامی سطح جهان تبدیل شده است و شرایط مربوط به آن بر اساس منطقه تفاوت هایی دارد.چاقی توانایی این را دارد که منجر به بیماری های دیگری از طیف های گسترده ای شود.در نگاه کلی، چاقی به عنوان توزیع غیر طبیعی یا تجمع بیش از حد چربی بدن،که بر سلامت تأثیر گذار است،بیان می‌شود. رزیستین یکی از عوامل التهابی مترشحه از بافت چربی است که افزایش ترشح آن سبب اختلال در عمل انسولین و سوخت وساز گلوکز میشود و رابط مهمی بین مقاومت به انسولین(یکی از ریسک فاکتورهای آترواسکلروز)و چاقی است. اسید گالیک در مقادیری توسط گیاهان و قارچ ها تولید میشود و دارای خاصیت ضد باکتری،ضد ویروسی و ضد التهابی و کاهنده چربی است.هدف این مطالعه بررسی اثر گالیک اسید بر میانگین سطح سرمی هورمون رزیستین در موشهای صحرایی چاق و نرمال بود.

مواد و روش ها: *در این تحقیق تجربی از رتهای نر ویستار با محدوده وزنی200-220 گرم و سن 9 تا 10 هفتگی در شرایط استاندارد استفاده شد. 48 رت در 6 گروه8 تایی شامل کنترل، تجربی 1 (دریافت گالیک اسید 100 میلی گرم)، تجربی 2 (دریافت گالیک اسید 200 میلی گرم)، تجربی 3 (کنترل پرچرب= تغذیه با غذای پرچرب به مدت 2 ماه)، تجربی 4 (تغذیه با غذای پرچرب و دریافت گالیک اسید 100 میلی گرم)، تجربی 5 (تغذیه با غذای پرچرب و دریافت گالیک اسید 200 میلی گرم) تقسیم شدند. پس از گذشت 28 روز از دریافت گالیک اسید، حیوانات توسط کتامین (100 میلیگرم/کیلوگرم) و زایلازین (20 میلیگرم/کیلوگرم) بیهوش شدند و از قلب آنها خونگیری شد و سرم خون جدا گردید. نتایج به کمک نرم افزار SPSSنسخه 21 و تست توکی در سطح آماری 5 درصد تجزیه و تحلیل شد.*

نتایج: میانگین غلظت رزیستین در گروه های تجربی 1و2 نسبت به گروه کنترل سالم کاهش معنی داری را در سطح آماری 5 درصد نشان داد ولی در گروه تجربی 3 افزایش معنی داری را نشان داد ($P\leq0.001$). میانگین غلظت رزیستین در گروه های تجربی 4و 5 نسبت به گروه کنترل پرچرب (تجربی3) کاهش معنی دار و نسبت به گروه کنترل سالم افزایش معنی داری را نشان داد. بیشترین اثر مربوط به غلظت200 میلی گرم گالیک اسید بود.

بحث و نتیجه گیری: گالیک اسید به عنوان یک آنتی اکسیدان قوی و با القای اثرکاهش میزان دریافت غذا و القای سیری، به صورت وابسته به دوز کاهش معنی داری در میانگین غلظت سرمی هورمون رزیستین در موش های صحرایی نر بالغ ایجاد کرد.

G-1731

Investigating the effect of gallic acid on the serum concentration of chemerin and omentin hormones in normal and obese male rats

علیرضا کریم پور [1] Ⓟ، **حسین کارگر جهرمی** [2]، **سبحان تهمتن دوقزلو** [1]، **زهرا کارگر جهرمی** [2]، **حسنعلی عابدی** [2] ©

[1] کمیته تحقیقات دانشجویی دانشگاه علوم پزشکی جهرم

[2] مرکز تحقیقات بیماری های غیر واگیر، دانشگاه علوم پزشکی جهرم

مقدمه: چاقی به عنوان توزیع غیر طبیعی یا تجمع بیش از حد چربی بدن، که بر سلامت تأثیر گذار است ، بیان می‌شود. این ماده در درجه اول بر مبنای شاخص توده بدنی (BMI، kg/m2)رده بندی می شود که معیار بسیار محدودی است. امنتین در تنظیم متابولیسم انرژی و توزیع چربی در بدن دخیل است. کمرین یک آدیپونکتین جدید است که تکثیر سلول های چربی و فعالیت سوخت وساز سلولی و نیز متابولیسم گلوکز در کبد و عضلهٔ اسکلتی را تنظیم میکند. اسید گالیک یک تر کیب از دسته فنولیک ها است که یکی از مواد موجود در عصاره هسته انگور می باشد. هدف این مطالعه بررسی اثر گالیک اسید بر میانگین سطح سرمی هورمون های کمرین و امنتین در موشهای صحرایی چاق و نرمال بود

مواد و روش ها: *در این تحقیق تجربی از رتهای نر ویستار با محدوده وزنی200-220 گرم و سن 9 تا 10 هفتگی در شرایط استاندارد استفاده شد. 48 رت در 6 گروه8 تایی شامل کنترل، تجربی 1 (دریافت گالیک اسید 100 میلی گرم)، تجربی 2 (دریافت گالیک اسید 200 میلی گرم)، تجربی 3 (کنترل پرچرب= تغذیه با غذای پرچرب به مدت 2 ماه)، تجربی 4 (تغذیه با غذای پرچرب و دریافت گالیک اسید 100 میلی گرم)، تجربی 5 (تغذیه با غذای پرچرب و دریافت گالیک اسید 200 میلی گرم) تقسیم شدند. پس از گذشت 28 روز از دریافت گالیک اسید، حیوانات توسط کتامین (100 میلیگرم/کیلوگرم) و زایلازین (20 میلیگرم/کیلوگرم) بیهوش شدند و از قلب آنها خونگیری شد و سرم خون جدا گردید. نتایج به کمک نرم افزار SPSSنسخه 21 و تست توکی در سطح آماری 5 درصد تجزیه و تحلیل شد.*

نتایج: میانگین غلظت امنتین در گروه های تجربی 1و2 نسبت به گروه کنترل سالم افزایش معنی داری را در سطح آماری 5 درصد نشان داد ولی در گروه تجربی 3 کاهش معنی داری را نشان داد (P≤0.001). میانگین غلظت کمرین در گروه های تجربی 1و2 نسبت به گروه کنترل سالم کاهش معنی داری را در سطح آماری 5 درصد نشان داد ولی در گروه تجربی 3 افزایش معنی داری را نشان داد (P≤0.001). میانگین غلظت امنتین در گروه های تجربی 4و 5 نسبت به گروه کنترل پرچرب (تجربی3) افزایش معنی دار و نسبت به گروه کنترل سالم تغییر معنی داری را نشان نداد. میانگین غلظت کمرین در گروه های تجربی 4و 5 نسبت به گروه کنترل پرچرب (تجربی3) کاهش معنی دار و نسبت به گروه کنترل سالم تغییر معنی داری را نشان نداد. بیشترین اثر مربوط به غلظت200 میلی گرم گالیک اسید بود.

بحث و نتیجه گیری: گالیک اسید به عنوان یک آنتی اکسیدان قوی و با القای اثر افزایشی در میزان امنتین و کاهش دادن میزان کمرین، به صورت وابسته به دوز اثرات ضداشتهایی و لیپولیزی در موش های صحرایی نر بالغ ایجاد کرد.

G-1801

Investigating the relationship between the consumption of different snacks and the risk of metabolic syndrome components in adults with normal weight in southwest Iran: a cross-sectional study

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مقدمه: دیابت نوع 2 مرتبط است که شامل چاقی شکمی، فشار خون بالا، گلوکز خون ناشتا، تری گلیسیرید، و سطح پایین کلسترول لیپوپروتئین با چگالی بالا (HDL-cمی‌باشد). بروز اختلالات متابولیک مرتبط با چاقی علیرغم داشتن وزن طبیعی در افراد با وزن طبیعی در سراسر جهان در حال افزایش است. هدف از انجام این مطالعه مقطعی بررسی رابطه بین انواع مختلف میان وعده و خطر اجزای منفرد سندرم متابولیک (MetSدر بزرگسالان با وزن طبیعی می‌باشد

مواد و روش ها: این مطالعه مقطعی بر روی یک نمونه تصادفی متشکل از 328 فرد با وزن طبیعی (18.5 ≤ BMI ≤ 24.9کیلوگرم بر متر مربع) شامل 157 آقا (47.9%) و 171 خانم (52.1%) بالای 20 سال با سن 39.2 ± 16.8 در شهر اهواز انجام شد. شاخص‌های آنتروپومتریک، فشار خون سیستولیک و دیاستولیک، پروفایل لیپیدی و قند خون ناشتا (FBGاندازه‌گیری شد. اجزای MetSبر اساس تعریف فدراسیون بین المللی دیابت (IDFانتخاب شدند. دریافت رژیم غذایی با یک FFQغیر کمی معتبر 50 موردی ارزیابی شد. تنقلات به عنوان غذاهای پرانرژی، مواد مغذی فقیر و همچنین غذاهای کم انرژی و پر فیبر تعریف شدند.

نتایج: در مردان سطوح قند خون ناشتا و تری گلیسرید به طور قابل توجهی بالا بود، در حالی که در زنان نرخ بالاتر چاقی شکمی و سطح HDL-cپایین مشاهده شد. شرکت‌کنندگان مسن‌تر با تحصیلات پایین‌تر درصد بیشتری را در اکثر مؤلفه‌های MetSنشان دادند. بروز چاقی شکمی و پرفشاری خون در سومین دسته نسبت به دسته اول کیک و بیسکویت سوپرمارکت (OR = 1.23; 95% CI: 1.02 – 1.49)و شکلات (OR = 1.10; 95% CI: 1.03-1.18)افزایش یافته است. با این حال، سایر میان وعده ها رابطه معنی‌داری نشان ندادند.

بحث و نتیجه گیری: مصرف تنقلات ناسالم با چربی بالا، قند و کربوهیدرات‌های تصفیه شده در قالب کیک‌ها و بیسکویت‌های سوپرمارکتی و همچنین محصولات شکلاتی با محتوای فلاونول‌های پایین، عادات اصلی میان وعده های غذایی هستند با چاقی شکمی و فشار خون در بزرگسالان با وزن طبیعی در جنوب غرب ایران مرتبط هستند. لذا توصیه می‌شود این تنقلات با خوراکی‌های سالم جایگزین شوند..

G-1802

Investigating the Challenges of Clinical Training in Medical Emergency Services; A Systematic Review

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مقدمه: دانش، مهارت و تجربه تکنسین‌های فوریت‌های پزشکی تأثیرات قابل توجهی بر بقای بیمار در محیط پیش‌بیمارستانی دارد، لذا دانشجویان این رشته نیازمند دریافت آموزش‌های باکیفیت هستند. هدف از انجام این پژوهش، بررسی نظام‌مند مطالعات انجام‌شده در زمینه چالش‌های موجود در آموزش بالینی رشته فوریت‌های پزشکی می‌باشد که می‌تواند به برنامه‌ریزی برای رفع این چالش‌ها کمک نماید.

مواد و *روش ها:* برای انجام این مطالعه مروری سیستماتیک، ابتدا جستجو با کلیدواژه‌های Emergency Medical Services، Clinical Teaching, Education، Challengesبراساس MeShو ترکیبشان بااستفاده‌از جستجوی پیشرفته در عناوین و خلاصه مقالات موجود در پایگاه‌های PubMed، Scopus, Web of Science، Ericو موتور جستجوی GoogleScholarانجام شد. تاریخ جستجو بین سال ۲۰۱۰ تا نوامبر ۲۰۲۲ بود. مقالات به‌دست‌آمده طی سه‌مرحله با مطالعه عنوان، خلاصه و متن کامل باتوجه‌به معیارهای ورود (گروه هدف دانشجویان، رشته تحصیلی فوریت‌های پزشکی و بررسی چالش‌های آموزشی موجود با زبان انگلیسی یا فارسی و امکان دسترسی به مقالات کامل) ارزشیابی و مقالات غربال شدند. سپس داده‌های مقالات براساس فرم محقق‌ساخته، استخراج شدند. به‌منظور به حداقل رساندن خطا، مراحل توسط دونفر از پژوهشگران به‌صورت موازی انجام شد و موارد عدم‌توافق مورد بحث با نفر سوم قرار گرفت. مقالات مروری، نامه به سردبیر و کتاب‌ها حذف شدند. سپس نتایج مورد تجزیه‌وتحلیل قرار گرفتند.

نتایج: از بین ۱۰۳ مقاله به‌دست‌آمده ۵ مقاله داراي معيارهاي ورود بودند که برروي دانشجويان مقطع کارداني و کارشناسي فوريت‌هاي پزشکي و در ايران، آمريکا و سوئد انجام شده‌بود. چهار مولفه اصلي چالش‌هاي آموزش فوريت‌هاي پزشکي عبارت‌بودند از: کمبود محيط آموزش بالیني، کمبود مربيان واجد شرايط، ضعف و نقص برنامه درسي و شکاف موجود بين آموزش نظري و عملي. زيرطبقات اصلي کمبود محيط آموزش بالیني عبارت‌بودند از: تخصيص اکثر دوره‌هاي عملي به محيط بيمارستان به‌جاي پيش بيمارستاني(امطالعه)،تجربه محدود در تمرين پيش‌بيمارستاني واقعي(۳مطالعه)،انجام امور غيرتخصصي در دروس عملي(امطالعه)، زيرطبقات اصلي کمبود مربيان واجد شرايط عبارت‌بودند از:آموزش بالیني توسط مربيان کم‌تجربه(۲مطالعه)،استفاده از مدرسان غيرتخصصي براي دروس نظري(امطالعه).زيرطبقات اصلي ضعف و نقص برنامه درسي عبارت‌بودند از:عدم استفاده از روش‌هاي نوين تدريس(۳مطالعه)، نتايج يادگيري ناسازگار با وظايف شغلي(۲مطالعه). زيرطبقات اصلي شکاف موجود بين آموزش نظري و عملي عبارت‌بودند از:عدم کفايت دروس تخصصي(۳مطالعه)،عدم تطابق بين پروتکل‌ها و دانش نظري(امطالعه)،عدم رعايت استانداردهاي مراقبت در محيط‌هاي پيش‌بيمارستاني(امطالعه)

بحث و نتیجه گیری: دانشجویان فوریت‌های پزشکی در طول تحصیل با چالش‌های مختلفی ازجمله چالش‌های مربوط به برنامه درسی، محیط یادگیری و مربیان و اساتید خود مواجه هستند. از آنجایی که این گروه از دانشجویان در آینده پیشتاز ارائه خدمات درمانی به بیماران بدحال خواهند بود، باید قبل از ورود به محیط‌های واقعی، مناسب‌ترین آموزش‌های نظری و عملی را دریافت کنند. سیاست‌گذاران سلامت و مسئولین آموزشی باید استراتژی‌های مناسب را در جهت مدیریت چالش‌ها و ارتقای یادگیری دانشجویان توسعه دهند.

G-1808

Investigation Of The Psychometric Properties Of The Elderly Infantilization Tool Among Healthcare Providers

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مقدمه: جمعیت سالمندان در سراسر جهان به سرعت در حال رشد است و سالمندی به عنوان یک مسئله جهانی در حال ظهور است. کودک انگاری یك الگوي رفتاري است كه در آن يك فرد صاحب اقتدار با يك فرد مسن به گونه اي تعامل مي كند، به او پاسخ مي دهد، يا با او رفتار مي كند كه گويي او يك كودك است. از جمله افراد کلیدی در مراقبت از سالمندان، پرستاران هستند و این پدیده (کودک انگاری سالمند) نیز در نزد آنان گزارش شده است. در ایران ابزار معتبری برای بررسی کودک انگاری سالمندان در تعامل با مراقبین سلامتی در دسترس نیست، هدف از این پژوهش ترجمه به فارسی و تعیین ویژگی های روانسنجی ابزار کودک انگاری سالمندان در گروه پرستاران بوده است.

مواد و *روش ها:* این مطالعه از نوع روش شناختی بوده است و ترجمه و روان سنجی و اعتباریابی ابزار کودک انگاری سالمند بر اساس الگوی WHOانجام شد. بعد از انجام روان سنجی ابزار، کاربرد آن ابزار در جامعه ایرانی با مطالعه توصیفی ارزیابی شد. پس از ترجمه ابزار انگلیسی کودک انگاری به فارسی و برگردان آن به انگلیسی، فوکوس گروه ((FGD، ارزیابی روایی صوری، روایی محتوا کمی و کیفی، روایي سازه و پایایی انجام شد. برای توصیف ویژگی های عمومی افراد از نرم افزار SPSSنسخه 22 استفاده شد. حجم نمونه در این مطالعه در مراحل مختلف کار متفاوت بوده است. در قسمت روایی سازه 400 پرستار در مطالعه شرکت کردند.

نتایج: در این مطالعه 400 پرستار شاغل در بخش¬های مرکز آموزشی درمانی شهید صیاد شیرازی و پنج آذر گرگان با میانگین سنی پرستاران 6/7 ± 35/86 شرکت کردند. ابتدا ابزار کودک انگاری سالمند بر اساس پروتکل سازمان بهداشت جهانی، ترجمه و پس از آن ترجمه برگردان شد. بعد از روایی صوری کمی و کیفی با کسب نظرات گروه‌های هدف به صورت چهره به چهره و محاسبه ضریب تاثیر آیتم، 94 عبارت ابزار با نمره بیش از 1/5 حفظ شدند. محاسبه CVRو بعد آن CVIمنجر به حذف 13 عبارت شد. ارزیابی همسانی درونی نشان داد ضریب آلفای کرونباخ پرسشنامه برابر 0/79 سطح مطلوب و قابل قبول اعتماد داده‌ها را دارد. ضریب همبستگی پیرسون وجود پایایی بین دفعات آزمون (آزمون-بازآزمون) تأیید گردید، به‌صورتی که مقدار آن برابر با ۹۰ درصد بود. بدین ترتیب پایایی نسخه فارسی و نهایی ابزار کودک انگاری سالمند تایید شد.

بحث و نتیجه گیری: ابزار کودک انگاری سالمند پس از طی فرایند ترجمه و روانسنجی اعم از روایی صوری، روایی محتوا به عنوان ابزاری روا و پایا در کشور قابلیت ارزیابی میزان کودک انگاری سالمند توسط پرستاران را دارد.

G-1809

Psychometric Properties of Family Collaboration Scale in family members of hospitalized older patients and nurses

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مقدمه: همکاری خانواده و پرستاران ،نقشی بسیارحیاتی در فرایند مراقبت از سالمندان بستری دارد برای دستیابی به چگونگی و روند این همکاری در بالین، ابزاری مطابق با فرهنگ کشور نیاز می باشد. این مطالعه با هدف تعیین ویژگی های روانسنجی ابزار همکاری خانواده سالمند بستری و پرستاران طراحی و اجرا شد.

مواد و *روش ها:* مطالعه روش شناسی حاضر در سال 1401 در بیمارستان های وابسته به دانشگاه علوم پزشکی گلستان انجام شد. در این مطالعه ابزار همکاری خانواده سالمند بستری با پرستاران ساخته Lindhardtو همکاران (2018)، مورد استفاده قرار گرفت .پس از کسب اجازه از طراح ابزار ، ترجمه و ترجمه برگردان ابزار با الگوی WHOانجام شد و نسخه ترجمه شده ابزار از نظر ویژگی‌های روانسنجی شامل پایایی اولیه، روایی صوری، روایی محتوا، روایی سازه، روایی همگرا و پایایی ارزیابی شد. در آخر پایایی نسخه فارسی ابزار از همسانی درونی و ضریب آلفای کرونباخ و امگا مک دونالد محاسبه شد. برای تحلیل داده ها از نرم افزار SPSS-16و AMOS-24استفاده شد.

نتایج: پایایی اولیه ابزار در کل و در حیطه ها با مقادیر بیشتر از 0.7 تایید شد. در روایی صوری کیفی به واسطه نظرات گروه‌های هدف برخی عبارات اصلاح شدند . درمحاسبه ضریب تاثیر آیتم، 42 عبارت ابزار حفظ شدند. محاسبه CVRمنجر به حذف 5 عبارت شد ولی در مرحله CVIبقیه عبارات حفظ شدند.پس از انجام تحلیل عاملی اکتشافی، 6 عبارت حذف شدند. در مجموع عبارات ابزار به 31 عبارت کاهش پیدا کرد. در مرحله بعد با رویکرد تحلیل عاملی تاییدی، شاخص‌های برازش ، استفاده از ابزار در جامعه پژوهش ایرانی را تایید کردند. در ادامه شاخص CR0.7، AVE0.5 CRAVEنشانگر تایید روایی همگرا بود. ارزیابی همسانی درونی با ضریب آلفای کرونباخ پرسشنامه برابر 0.87 سطح مطلوب را نشان داد و مقادیر ارزیابی شده امگا مک دونالد بیشتر از 0.8 بود. همچنین ICCابزار 0.82 و همبستگی دو مرحله آزمون معنا دار بود.بدین ترتیب پایایی نسخه فارسی تایید شد.

بحث و نتیجه گیری: ابزار همکاری خانواده سالمند بستری و پرستاران پس از طی فرایند ترجمه و روانسنجی به عنوان ابزاری روا و پایا در کشور قابلیت ارزیابی میزان همکاری خانواده سالمند بستری و پرستاران را دارد.

G-1811

Investigation of Lipotropic activities of aqueous extract of Dactylorhiza maculate in wistar rats fed a normal and fat-enriched diet

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مقدمه: در سال های اخیر چاقی به عنوان یک عارضه جهانی همه گیر مطرح شده است. فیبر گلوکومانان موجود در ثعلب در کاهش وزن، کنترل قند خون و کاهش کلسترول نقش دارد. هدف این مطالعه بررسی اثر عصاره بررسی فعالیت لیپوتروپیک عصاره آبی ریشه ثعلب در موش های صحرایی نر تغذیه شده با رژیم غذایی نرمال و پرچرب بود.

مواد و *روش ها:* در این تحقیق تجربی از رتهای نر ویستار با محدوده وزنی200-180 گرم و سن 7 تا 8 هفتگی در شرایط استاندارد استفاده شد. 48 رت در 6 گروه8 تایی شامل کنترل، تجربی 1 (تغذیه با غذای نرمال و دریافت عصاره ثعلب 360 میلی گرم)، تجربی 2 (تغذیه با غذای نرمال و دریافت عصاره ثعلب 620 میلی گرم)، تجربی 3 (کنترل پرچرب= تغذیه با غذای پرچرب به مدت 2 ماه)، تجربی 4 (تغذیه با غذای پرچرب و دریافت عصاره ثعلب 360 میلی گرم)، تجربی5 (تغذیه با غذای پرچرب و دریافت عصاره ثعلب 620 میلی گرم) تقسیم شدند. پس از گذشت 28 روز از دریافت عصاره، مدفوع و بافت کبد حیوانات جدا شد. یک گرم مدفوع و بافت کبد به 18 میلی لیتر هگزان-اتانول اضافه و پس از هموژن کردن، سوسپانسیون حاصله فیلتر شد. محلول حاصل به مدت حداقل 1 دقیقه با 12 میلی لیتر سولفات سدیم جهت حذف مواد غیر

نتایج: میانگین غلظت تری گلیسیرید و کلسترول تام در بافت کبد و مدفوع در گروه های تجربی 1و2 نسبت به گروه کنترل سالم کاهش معنی داری را در سطح آماری 5 درصد نشان داد. میانگین غلظت تری گلیسیرید و کلسترول تام در بافت کبد و مدفوع در گروه های تجربی 4و 5 نسبت به گروه کنترل پرچرب (تجربی3) کاهش معنی داری را در سطح آماری 5 درصد نشان داد. بیشترین اثر مربوط به غلظت 620 میلی گرم بر کیلوگرم عصاره ثعلب بود.

بحث و نتیجه گیری: ثعلب دارای خاصیت آنتی اکسیدانی و کوئرستین و فیبر گلوکامانان، با القای اثر هیپولیپیدمیک، به صورت وابسته به دوز کاهش معنی داری در میانگین غلظت تری گلیسیرید و کلسترول تام در بافت کبد و مدفوع رت نر بالغ ایجاد کرد.

G-1820

Explaning the experience of health care management students in Bam university medical sciences regarding intership units field

نرگس خورشیدی [1]، فاطمه مصطفی پور [1] © ℗، شقایق شفا [1]
[1] کمیته تحقیقات دانشجویی ،دانشگاه علوم پزشکی بم،بم،ایران

مقدمه: یکی از رشته های مهم و کلیدی در حوزه نظام سلامت رشته مدیریت خدمات بهداشتی و درمانی می باشد که دانش آموختگان این رشته به عنوان نیروی انسانی آینده نظام سلامت، از گروه های تاثیر گذار بر حفظ و ارتقای سطح سلامت جامعه می باشند، لذا توجه به امر آموزش این دانشجویان ضرورت می یابد تا با کسب مهارت های لازم به خصوص در دوره های کارآموزی در عرصه موجب بهبود فرآیند های نظام سلامت شوند؛ بنابراین این مطالعه با هدف تبیین تجارب زیسته دانشجویان و فارغ التحصیلان مقطع کارشناسی رشته مدیریت خدمات بهداشتی و درمانی دانشگاه علوم پزشکی بم درخصوص واحد های این درس طراحی و اجرا گردید.

مواد و *روش ها:* مطالعه حاضر یک مطالعه کیفی با رویکرد پدیدارشناسی می باشد. جامعه پژوهش شامل کلیه دانشجویان رشته مدیریت خدمات بهداشتی و درمانی که حداقل کارآموزی در عرصه یک را گذرانده اند و فارغ التحصیلان این رشته می باشند. نمونه گیری به صورت هدفمند با استراتژی گلوله برفی انجام شد. ابزار جمع آوری داده ها مصاحبه نیمه ساختار یافته بود. که در مجموع پس از انجام 20 مصاحبه، اشباع داده ها محقق شد. جهت تحلیل داده ها از روش تحلیل تماتیک استفاده شد.

نتایج: در پژوهش حاضر، یافته ها به طور کلی در دو طبقه اصلی، نقاط قوت مربوط به دروس کارآموزی در عرصه و نقاط ضعف مربوط به آن تقسیم بندی شدند؛ سه کد اصلی طبقه اول شامل نقاط قوت مربوط به: طرح درس، اساتید و کارپوشه می باشند. و در مجموع از این کدها 9 زیرکد به دست آمد .و از هفت کد اصلی طبقه دوم که شامل چالش های مربوط به: پرسنل فیلد های کارآموزی در عرصه، اساتید کارآموزی در عرصه، کارپوشه، امکانات رفاهی، طرح درس و برنامه ریزی انجام کارآموزی در عرصه می باشند، 18 زیرکد به دست آمد.

بحث و نتیجه گیری: نتایج این مطالعه نشان می دهد دانشجویان در گذراندن واحد های کارآموزی در عرصه با چالش های متعددی مواجه بوده اند، که از جمله آنها می توان به عدم همکاری پرسنل فیلد کارآموزی و کمبود خدمات رفاهی اشاره کرد؛ بر طبق یافته ها، پیشنهاد می گردد اقداماتی در زمینه بهبود عملکرد مانند برگزاری جلسات توجیهی برای آشنایی پرسنل فیلد های کارآموزی با جایگاه رشته مدیریت خدمات بهداشتی و درمانی، ایجاد کارپوشه ماموریت محور الکترونیک(پورتفولیو)، تعیین مربی آموزشی برای کارآموزی ها و ایجاد معیار های مشخص برای ارزشیابی دانشجویان در پایان کارآموزی ها صورت گیرد. اجرای اقدامات اصلاحی و همچنین حفظ نقاط قوت حاصله از این پژوهش می تواند به تصمیم گیران و مجریان حوزه آموزش جهت بهبود اثر بخشی واحد های کارآموزی در عرصه، افزایش مهارت های شغلی دانشجویان و همچنین ارتقاء جایگاه رشته مدیریت خدمات بهداشتی و درمانی کمک کند.

G-1846

The effect of hydroalcholic extract of Ocimum basilicum on Gene Expression and Lipoprotein Lipase (LPL) Activity in Rat Aidipose Tissue

کیمیا کارگرفرد [1] ℗, مریم بهرامی غیاث آبادی [1], زهرا کارگر جهرمی [2], سیده آیدا طباطبایی [1], حسین کارگر جهرمی [2] ©

"[1] کمیته تحقیقات دانشجویي، دانشگاه علوم پزشكي جهرم، جهرم ایران

[2] مرکز تحقیقات بیماریهاي غیر واگیر، دانشگاه علوم پزشكي جهرم، جهرم، ایران"

مقدمه: ریحان به عنوان دارویی گیاهی به دلیل اثرات دارویی بسیار مانند ضد قند خون بالا، فعالیت های ضد سرطانی، کاهش دهنده چربی خون و ضد آترواسکلروتیک استفاده گسترده ای دارد. هدف این مطالعه بررسی اثر عصاره هیدروالکلی بذر ریحان بر بیان ژن و فعالیت لیپوپروتئین لیپاز بافت چربی موش های صحرایی بود.

مواد و *روش ها:* در این تحقیق تجربی و کاملا تصادفی از 48 سر موش صحرایی نر نژاد ویستار با میانگین وزنی200-180 گرم و سن 7 تا 8 هفتگی در شرایط استاندارد استفاده شد. حیوانات در 6 گروه 8 تایی شامل کنترل، تجربی 1 (غذای نرمال و دریافت عصاره بذر ریحان 300 میلی گرم)، تجربی 2 (غذای نرمال و دریافت عصاره بذر ریحان 600 میلی گرم)، تجربی 3 (کنترل پرچرب=غذای پرچرب به مدت 2 ماه)، تجربی 4 (غذای پرچرب و دریافت عصاره بذر ریحان 300 میلی گرم)، تجربی 5 (غذای پرچرب و دریافت عصاره بذر ریحان 600 میلی گرم) تقسیم شدند. پس از گذشت 28 روز، از حیوانات خونگیری شد و بافت چربی اپیدیدیم جدا شد. بافت چربی در محلول RNA later و میکروتیوب RNAase Freeقرار داده شد و سپس RNAاستخراج شد. سپس سنتز cDNAانجام شد و بیان ژن لیپوپروتئین لیپاز با استفاده از ژن House Keepingبتا اکتین بررسی گردید.

نتایج: ميانگين سرمي آنزيم ليپوپروتئين ليپاز و ميانگين بيان ژن ليپوپروتئين ليپاز در بافت چربي اپيديديم در گروه هاي سالم دريافت كننده بذر ريحان (تجربي 1 و2) نسبت به گروه كنترل افزايش غيرمعني داري را نشان داد. ميانگين سرمي آنزيم ليپوپروتئين ليپاز و ميانگين بيان ژن در بافت چربي اپيديديم در گروه هاي پرچرب دريافت كننده بذر ريحان (تجربي 4و 5) ميلي گرم افزايش معني داري نسبت به گروه كنترل پرچرب (تجربي3) در سطح آماري 5 درصد نشان داد. بيشترين اثر مربوط به غلظت 1000 ميلي گرم عصاره بذر ريحان بود.

بحث و نتیجه گیری: بذر ریحان دارای آنتوسیانین، کوئرستین، کامفرول و لوتئولین با خاصیت کاهش اشتها و لیپولیزی، میانگین بیان ژن لیپوپروتئین لیپاز بافت چربی اپیدیدم و فعالیت سرمی آنزیم لیپوپروتئین لیپاز موش های صحرایی نر بالغ را افزایش داد.

G-1905

The Comparasion of normothermic versus hypothermic cardiopulmonary bypass in children undergoing congenital heart surgary

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مقدمه: شایع ترین ناهنجاری مادرزادی، ناهنجاری قلبی است. جراحی ناهنجاری مادرزادی قلب بطور کلی همراه با بای پس قلبی-ریوی به دو روش هایپوترمیک و نرموترمیک انجام میشود. منطق اصلی و بنیادی برای سرد کردن بدن حفاظت از مغز،کلیه و قلب است که به واسطه کاهش میزان نیازهای متابولیک و مصرف اکسیژن انجام می شود. در روش دیگردرجه حرارت بیمار تا 35 درجه سانتی گراد کاهش پیدا می کند

مواد و *روش ها:* پژوهش حاضر کوهورت آینده نگر دو گروهی می باشد که نمونه گیری بر روی 120 کودک با نارسایی مادرزادی قلب تحت عمل جراحی قلب که بصورت تصادفی در دو گروه 60 نفره با دمای 28 الی 32 درجه سانتی گرادو 35 الی 37 درجه قرار میگیرند. اطلاعات دموگرافیک، نوع عمل جراحی، وجود یا عدم وجود سیانوز و سندروم ، میزان برون ده ادرای حین عمل و 4 ساعت و 24 ساعت بعد ، مدت زمان کراس کلمپ، مدت زمانCPB، دوز اینوتروپ ها ، مدت زمان حمایت اینوتروپیک، آنالیز گازهای خونی شریانی ، بررسی عملکرد کلیوی قبل و حین عمل و بدو ورود به ICUو4 و24 ساعت بعد ، مدت زمان انتوباسیون، مدت زمان بستری در بخش مراقبت ویژه و بیمارستان و میزان نیاز به فراورده های خونی، میزان میزان درناژ قفسه سینه ، میزان اشباع اکسیژن محیطی خون ، شمارش سلول های خونی و تست های انعقادی بررسی می‌شود

نتایج: نتايج نشان داد كه در جراحي‌هاي قلب اطفال، باي پس قلبي ريوي به روش دماي طبيعي بدن نسبت به سرد كردن متوسط بدن با دوز و مدت زمان حمايت داروهاي اينوتروپيک كمتر، مدت زمان بستري در بخش مراقبت هاي ويژه و بيمارستان كمتر و مدت زمان انتوباسيون كمتر، ميزان خونريزي و نياز به ترانسفوزيون خون و فرآورده هاي خوني كمتر، مدت زمان كراس كلمپ و باي پس قلبي ريوي كوتاهتر، ميزان PH 24ساعت بعد از ورود به بخش مراقبت هاي ويژه با اسيديته كمتر همراه با ميزان دي اكسيد كربن شرياني كمتر و همچنين فشار نسبي اكسيژن شرياني 4 ساعت بعد از ورود به بخش مراقبتهاي ويژه كمتر، ميزان ديورز بيشتر در حين عمل همراه است. همچنين بعد از ورود به بخش مراقبت هاي ويژه ميزان گلبول هاي سفيد ، هموگلوبين و هماتوكريت و مدت زمان تست هاي انعقادي كمتر است.

بحث و نتیجه گیری: بای پس قلبی ریوی به روش دمای طبیعی بدن ایمن و موثر برای اعمال جراحی قلب کودکان است. در این روش با بهبودی زودتر، کاهش قابل توجه عوارض پس از عمل و هزینه های کمتر همراه می باشد.

G-1938

تاثیر رایحه درمانی با اسانس آبی گلبرگ گیاه گل محمدی بر عملکرد جنسی زنان یائسه

نسرین وحدانی رشوانلویی [1] © Ⓟ
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مقدمه: یکی از اختلالات شایع در زنان یائسه، اختلال عملکرد جنسی است که تأثیر غیرقابل انکاری برکیفیت زندگی فرد و شریك جنسی او دارد. با توجه به اهمیت استفاده از روشهای غیردارویی از جمله رایحه درمانی در بهبود اختلال عملکرد جنسی در زنان یائسه، این پژوهش با هدف تعیین تاثیر رایحه درمانی اسانس آبی گلبرگ گیاه گل محمدی بر عملکرد جنسی زنان یائسه انجام شد.

مواد و *روش ها:* در این کارآزمایی بالینی، تعداد 105 زن یائسه تحت پوشش مراکز خدمات جامع سلامت شهر گناباد در سال 1401، به طور تصادفی به دو گروه آزمون (رایحه درمانی با اسانس گل محمدی) و گروه کنترل (با پلاسبو) تخصیص یافتند. گروه مداخله 3 قطره اسانس گل محمدی ۱۰ درصد را روزی3 بار به مدت ۶ هفته روی ساعد دست و گروه دارونما محلول آب مقطر را روزی۳ بار به مدت ۶ هفته روی ساعد دست به صورت استنشاقی دریافت کردند. ابزار پژوهش شامل فرم ثبت مشخصات دموگرافیک و پرسشنامه شاخص عملکرد جنسی (FSFI) بود. دادهها با استفاده از نرم افزار SPSS نسخه 21 و با بکارگیری آزمونهای آماری کایاسکوئر، آزمون تی مستقل، آزمون دقیق، من-ویتنی و روش معادلات برآوردی تعمیم یافته(GEE) تجزیه و تحلیل شدند. سطح معنی داری کمتر از 05/0 در نظر گرفته شد.

نتایج: میانگین سنی زنان یائسه گروه آزمون 09/52 (انحراف معیار=11/2) و گروه کنترل 92/51 (انحراف معیار=21/2) سال بود. نتایج روش GEE نشان داد که در طول زمان، متوسط نمره متغیرهای میل جنسی، تهییج جنسی، لغزنده‌سازی، ارگاسم، کاهش درد در هنگام مقاربت، رضایت‌مندی جنسی و بهبود عملکرد جنسی در گروه آزمون با شیب بیشتری نسبت به گروه کنترل افزایش می‌یابد (P= 001/0)

بحث و نتیجه گیری:
نتایج این مطالعه شواهدی مبنی بر اثرات مثبت رایحهدرمانی با اسانس آبی گلبرگ گیاه گل محمدی به صورت استنشاقی در بهبود عملکرد جنسی و حیطه های آن در زنان یائسه را نشان داد.

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G-1944

evaluation the reliability of biomechanical variables of jumping performance extracted from accelerometer data

مریم نظری [1] Ⓟ, سحر بوذری [2] ©, گیتی ترکمان [2], محمدعلی سنجری [3]
"[1] کارشناسی ارشد فیزیوتراپی، گروه فیزیوتراپی، دانشکده علوم پزشکی، دانشگاه تربیت مدرس، تهران، ایران
[2] دکترای تخصصی فیزیوتراپی، گروه فیزیوتراپی، دانشکده علوم پزشکی، دانشگاه تربیت مدرس، تهران، ایران
[3] دکترای تخصصی بیومکانیک، مرکز تحقیقات توانبخشی و گروه علوم پایه توانبخشی، دانشکده علوم توانبخشی، دانشگاه علوم پزشکی ایران، تهران، ایران"

مقدمه: شتاب‌سنج ابزاری است که به صورت سنسور پوشیدنی و یا به صورت حسگر تعبیه شده در گوشی هوشمند یا واحد سنجش اینرسی (Inertial Measurement Unit)در دسترس است. این ابزار با اتصال به نواحی مختلف بدن قادر به ثبت شتاب فعالیت‌های فیزیکی مختلف همانند پرش، دویدن و راه رفتن است. داده‌های شتاب‌سنج می‌تواند در ارزیابی فعالیت‌های فیزیکی و نیز کمک به برنامه ریزی برای درمان یا تجویز ورزش‌های مختلف به کار گرفته شود. از آن جایی که شتاب‌سنج اندازه کوچکی دارد، نسبتا ارزان قیمت است و می‌تواند در تمام محیط‌ها از جمله محیط‌های بالینی، آزمایشگاهی و روزمره مورد استفاده قرار بگیرد، به ابزاری برای توان‌بخشی از راه دور تبدیل شده است. هدف مطالعهٔ حاضر بررسی تکرارپذیری متغیرهای مربوط به عملکرد کلی بدن در فعالیت پرش مستخرج از شتاب سنج تعبیه شده در واحد سنجش اینرسی بود. با اینکه در مطالعات پیشین تعداد محدودی از متغیرهای بیومکانیکی پرش بررسی شده بودند،

مواد و *روش ها:* برای ارزیابی عملکرد کلی بدن، 34 زن سالم سه پرش عمقی را در چهار زمان مختلف انجام دادند. ثبت داده‌های پرش با استفاده از یک شتاب‌سنج که با کمربند به کمر افراد متصل شده بود، انجام گرفت و سپس با انجام محاسباتی متغیرهای بیومکانیکی پرش نظیر نیرو، توان، ارتفاع و سایر متغیرها به دست آمد. پایان نامهٔ حاضر با کد اخلاق IR.MODARES.REC.1399.129 در کمیته اخلاق دانشگاه تربیت مدرس و کد IRCT20201128049511N1 در مرکز ثبت کارآزمایی بالینی به ثبت رسیده بود.

نتایج: بر اساس آنالیزهای آماری، متغیرهای بیومکانیکی پرش هم‌چون ارتفاع، نیرو، توان، نرخ توسعهٔ نیرو، سفتی و ایمپالس در چهار زمان مختلف از تکرارپذیری بالایی برخوردار هستند

بحث و نتیجه گیری: با توجه به تکرارپذیری بالای متغیرهای بیومکانیکی پرش مستخرج از داده‌های شتاب می توان شتاب سنج را به عنوان ابزاری تکرارپذیر برای بررسی متغیرهای بیومکانیکی عملکرد پرش پیشنهاد کرد. هم‌چنین از آن جایی که گوشی‌های هوشمند نیز دارای شتاب‌سنج هستند، بسیاری از درمانگران و محققین در محیط‌های بالینی و آزمایشگاهی می‌توانند حتی بدون تهیهٔ شتاب‌سنج و تنها از طریق گوشی هوشمند، به ارزیابی عملکرد کلی بدن و کمک به برنامه ریزی برای درمان یا ارتقای عملکرد بپردازند. به علاوه در صورت دسترسی به نرم افزارهای ساده شتاب‌سنج مربیان، ورزشکاران و حتی عموم جامعه می‌توانند از مزایای استفاده از آن‌ها بهره ببرند.

G-1961

کلستاز طولانی مدت ناشی از عفونت ویروس هپاتیتA؛ گزارش یک مورد

علیرضا محبی [1] Ⓟ، سیده عاطفه کرمانی [2]، شهرام حبیب زاده [3] ©
[1] کمیته تحقیقات دانشجویی، دانشکده پزشکی، دانشگاه علوم پزشکی اردبیل- ایران
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[3] گروه بیماری های داخلی ، بیمارستان امام خمینی ،دانشگاه علوم پزشکی اردبیل، ایران

مقدمه: هپاتیت Aشایع ترین هپاتیت حاد ویروسی در سراسر جهان است و تقریبا همیشه یک بیماری خوش خیم می باشد اما در مواردی همراه با اشکال بالینی غیرمعمول عفونت مانند هپاتیت عودکننده، هپاتیت طولانی مدت و هپاتیت کلستازی نادر می باشد. نوع کلستاز با خارش، یرقان و همچنین افزایش بیلی روبین سرم و آلکالین فسفاتاز مشخص می شود.

مواد و *روش ها:* بیمار خانم 23ساله بدون سابقه بیماری خاص با شکایت خارش شدید با علایم همراه تب، لرز، تهوع، استفراغ، ادرار قهوه ای رنگ و تغییر رنگ پوست مایل به زرد تیره می باشد؛ خارش بیمار بصورت جنرالیزه بدون وجود پتشی و پورپورا بوده است که با تشخیص اولیه زردی به متخصص عفونی ارجاع می شود؛ متخصص عفونی با توجه به نتایج حاصل از شرح حال و پاراکلینیک تشخیص بیماری هپاتیت Aرا برای بیمار مطرح می کند و دوره درمان ده روزه با داروی های اروسوداکسی کولیک اسید و پردنیزولون به همراه استراحت مطلق و رعایت رژیم غذایی (عدم مصرف مواد غذایی سرخ شده و ادویه جات)شروع می کند. حداکثر سطح بیلی روبین کل9 mg/dlدر مدت سه ماه دوره بیماری بود، پس از آن مقادیر بیلی روبین به تدریج شروع به کاهش کرد و پس از حدود 2ماه مقادیر به سطح نرمال رسید. روند مشابهی در مورد SGOTو SGPTمشاهده شد.

نتایج:

ESR 2h	ESR 1h mm/h	Albumin mm/h	Bilirubin Direct (g/dl)	Bilirubin Total (mg/dl)	ALP (mg/dl)	GGTP (U/L)	SGPT (U/L)	SGOT (U/L)	Date (U/L)
88	53	4.53	4.7	5.5	--	65	332	77	6/8/22
81	47	--	6.8	9	--	26	82	58	13/8/22
--	--	--	0.9	2.2	326	--	141	61	28/8/22
78	46	--	0.5	1	393	--	42	27	3/10/22
55	28	--	0.2	0.5	284	--	28	19	1/11/22
61	36	--	0.2	0.4	223	--	18	15	30/11/22
44	21	--	0.2	0.5	326	--	20	19	29/5/23

بحث و نتیجه گیری:این مطالعه نشان می دهد علی رغم نادر بودن کلستاز ناشی از هپاتیت، باید دربررسی بیمارن مبتلا به هپاتیت، به عوارض نادر از جمله کلستاز ناشی از هپاتیت توجه کرد و همچنین در صورت مشاهده زردی کلستاتیک، هپاتیت Aرا نیز جز تشخیص های افتراقی بیمار در نظر گرفت.

G-2014

Investigating the trend of changes in important climatic parameters in Ardabil province

نازلی داداش زاده خیاط [1] ©℗, مهدی وثوقی [2], مریم عالیپور [1], نگین فتحی [1], رضا رضاپور [1], اصغر اصغری [1], نفیسه ایمانی [1]

[1] Students research committee, school of health, Ardabil university of medical sciences, Ardabil, Iran

[2] Social Determinants of Health Research Center, Ardabil University of Medical Sciences, Ardabil, Iran"

مقدمه: تغییرات اقلیمی در دهه‌های اخیر باعث تخریب محیط زیست، افزایش گازهای گلخانه‌ای و از بین رفتن توازن اقلیمی شده است. این پدیده به عنوان خطرناک‌ترین مشکل در قرن ۲۱ شناخته شده است. تأثیرات منفی تغییرات اقلیم بر آب و هوا، سیستم‌های مختلف و انسان‌ها را تهدید می‌کند. همچنین، پیش‌بینی شده که دمای جهان در مدت زمان بین ۲۰۳۰ تا ۲۰۵۰ به بالاتر از ۱/۵ درجه‌ی سانتیگراد برسد. آثار تغییر اقلیم بر مناطق زمین نیز متفاوت است و برخی از مناطق حساسیت بیشتری دارند. مانند مناطقی با اقلیم مدیترانه‌ای که در برابر تغییر اقلیم دچار استرس می‌شوند

مواد و *روش ها:* همه ی داده های مربوط به اقلیم توسط محققین جمع آوری نمی‌شود و داده های آماده از سازمان هواشناسی استان اردبیل با هماهنگی اخذ خواهد شد به طوری که داده های سال های ۱۳۸۹ تا ۱۳۹۹ گرفته و مورد ارزیابی قرار می گیرد. جامعه آماری ایستگا ه های سینوپتیک استان اردبیل می باشد و داده های مربوط به بارش باران و برف ،دما، رطوبت و همچنین سرعت و جهت باد از سایت هواشناسی استان اردبیل به صورت سرشماری تهییه و از روش های آماری منکندال و سایر ازمون ها استفاده خواهد شد و در غالب اکسل و اس پی اس اس مورد تجزیه و تحلیل قرار می گیرد.

نتایج: با توجه به نتایج افزایش دما در همه فصول طی ۱۰ سال دیده می شود.به غیر از تابستان که روند کاهشی با شیب ۰/۰۰۹۲ بوده است. بیشترین تغییرات دمایی مربوط به فصل پاییز بوده که این روند باشیب ۰/۱ برای هر سال در حال افزایش بوده است. در کل با در نظر گرفتن میانگین دماي همه فصول ،روند افزایش دما در این ۱۰ سال باشیب ۰/۱۶ دیده می شود. با توجه به نتایج، شاهد کاهش کلی بارش با شیب منفی ۱/۹ طی ۱۰ سال گذشته هستیم. در تمامی فصول نتیجه یکسان بوده و بارش کاهش یافته است به جز فصل زمستان که روند افزایشی با شیب ۰/۷ بوده است. بیشترین شیب کاهشی مربوط به فصل بهار با شیب منفی ۱/۶ بوده است. در کل با در نظر گرفتن میانگین بارش تمامی فصل ها ، روند کاهش بارش در این ۱۰ سال با شیب منفی ۱/۹۳ دیده می‌شود.

بحث و نتیجه گیری: با توجه به مطالعه حاضر ،شاهد روند افزایش جزئی دما و کاهش شدید بارش در استان اردبیل که یکی‌از استان های معتدل و سرسبز ایران به حساب می آید هستیم. این تغییرات حاکی از تغییر تغییر اقلیم در این استان است. مدل ها پیش‌بینی می کنند که افزایش دما و کاهش بارش در سال های آتی ادامه خواهد داشت.

G-2029

Factors related to attitude towards having children in Iran: A systematic review

فاطمه پورحکاک [1] © ℗, بهناز انجذاب [2]

[1] دانشجوی کارشناسی ارشدمشاوره در مامایی، دانشگاه بین الملل، علوم پزشکی شهید صدوقی، یزد، ایران

[2] استادیار مرکز تحقیقات پرستاری و مامایی، دانشکده پرستاری و مامایی، دانشگاه علوم پزشکی شهید صدوقی ، یزد، ایران"

مقدمه: نگرش اولین عامل مهم در شکل گیری قصد وتعیین رفتار های فرزندآوری می باشد. قسمتی از تحولات خانوادگی در ایران به باور جامعه شناسان نتیجه تغییر نگرشهای افراد است. ایران در دهه های گذشته، تغییرات مختلف نگرشی و ارزشی در زمینه فرزندآوری را تجربه کرده است. با توجه به کاهش نرخ جمعیت در سال های اخیر و ضرورت اتخاذ تصمیمات و سیاستها در زمینه فرزندآوری شناخت عوامل موثر بر نگرش به فرزندآوری بسیار با اهمیت است.

مواد و *روش ها:* مطالعه حاضر مروری بود که عوامل مرتبط با نگرش به فرزندآوری را از سال1392-1402 را بررسی کرده است . برای دستیابی به مقالات مربوطه از پایگاههای اطلاعاتی مگ ایران و اس. آی. دی و نورمگز و گوگل اسکالر و سیویلیکا استفاده شد. بدین صورت که تمامی مقالاتی که در عنوانشان دارای کلمات کلیدی فارسی نگرش به فرزندآوری، فرزندآوری، نگرش به باروری و کلمه انگلیسی Attitudees toward Childbearingبود انتخاب شدند.

نتایج: در جستجوی اولیه 92 مقاله وارد مطالعه شد که بعد از بررسی و حذف مقالات تکراری، تعداد 20 مقاله تجزیه و تحلیل شد. مطالعات در مناطق مختلف ایران نشان داد عواملی مانند کیفیت و سبک زندگی، شغل، عوامل اعتقادی(دینداری)، هویت شناختی - جسمانی، مصرف رسانه، نوگرایی و بازاندیشی مدرن، احساس تنهایی و نا امنی ، خانواده گرایی و مولفه های (فرد گرایی و مسئولیت پذیری، سرمایه اجتماعی و فرهنگی)، تعداد فرزند، سن، ترجیح جنسیتی، فاصله سنی (بین فرزندان و از ازدواج تا تولد اولین فرزند)، تمایل به پدر و مادر شدن، عوامل شخصیتی(الگوهای روابط ابژه، توانمندی ایگو و نگرش به نقش های جنسیتی) از عوامل مرتبط با نگرش بر فرزندآوری بودند همچنین مطالعات نشان داد برنامه آموزشی مبتنی بر گام های توانمندسازی و برنامه آموزشی مبتنی بر مدل فرانظریه ای و مشاوره گروهی بر تغییر نگرش زنان به باروری موثر بوده است.

بحث و نتیجه گیری: نتایج مطالعه حاضر نشان داد عوامل مختلفی بر نگرش به فرزندآوری اثرگذار می باشد که نشان دهنده ناهمگونی های موجود در جامعه ایرانی بوده است که به مسئولان یادآوری میکند که توجه لازم را به تفاوت های موجود در بین گروه های اجتماعی مختلف داشته باشند یافته این مطالعه میتواند برای سیاستگذاران سلامت راهنمای مناسبی جهت کاهش نگرش منفی و افزایش نگرش مثبت به فرزندآوری و افزایش جمعیت در ایران باشد. همچنین توصیه میشود که برنامه ریزی جهت برگزاری جلسات آموزشی و مشاوره ای میتواند برای تغییر نگرش به فرزندآوری موثر باشد.

G-2036

The effect of adding a low dose of epinephrine along with intrathecal bupivacaine and fentanyl on the hemodynamic stability of patients undergoing lower limb orthopedic surgery

زهرا خلج [1] ℗, نوید کلانی [2] ©, حسن ضابطیان [2], معصومه پورمختاری [3]
[1] کمیته تحقیقات دانشجویی، دانشگاه علوم پزشکی جهرم، جهرم، ایران.
[2] مرکز تحقیقات بیهوشی و کنترل درد، دانشگاه علوم پزشکی جهرم، جهرم، ایران.
[3] دانشگاه علوم پزشکی جهرم، جهرم، ایران."

مقدمه: به تازگی از اپی نفرین برای افزایش عمق و طول مدت بیدردی حاصل از بی حس کننده های موضعی استفاده میشود این ماده به صورت موضعي براي كاهش انتشار بی حس كننده موضعي و كاهش خونريزي ناشي از جراحي به طور گسترده مورد استفاده قرار میگیرد. لذا در این مطالعه تاثیرمقادیر کم اپی نفرین اضاف شده به بوپیواکائین و فنتانیل را بر وضعیت همودینامیک مورد بررسی قرار خواهیم داد.

مواد و *روش ها:* این مطالعه یک کارآزمایی بالینی بود. تعداد 30 بیمار 18 تا 85 سال (در دو گروه 15 نفره) با ASA I,Π بیماران تحت عمل جراحی ارتوپدی اندام تحتانی، مورد ارزیابی قرار گرفتند. معیار های ورود به مطالعه شامل کلاس ASAیک یا دو و رضایت به شرکت در مطالعه بود. بیماران به روش تخصیص تصادفی ساده و به صورت نمونه های در دسترس با استفاده از جدول اعداد تصادفی به دو گروه، گروه A: 2/0میلی گرم اپی نفرین + 20 ماکروگرم فنتانیل+ 15 میلی گرم بوپیواکایین و گروه B: 15میلی گرم بوپیواکایین تقسیم بندی شدند. علایم حیاتی، میزان درد، تهوع و لرز بیماران مورد ارزیابی قرار گرفت. تجزیه وتحلیل اطلاعات بوسیله شاخص های امار توصیفی نظیر میانگین و درصد و آزمون های آماری مناسب از قبیل Repeated measurementو Anovaبوسیله نرم افزار spssنسخه 21 انجام شد.

نتایج: یافته های پژوهش نشان داد گروه‌های مطالعه از نظر متغیرهای سن و جنسیت همسان هستند. میانگین فشارخون سیستولیک، دیاستولیک، متوسط شریانی و ضربان قلب در زمان‌های قبل و بعد از بی‌حسی، 15، 30،45، 60،75، 90، 120 دقیقه بعد از تزریق دارو و در ورود به ریکاوری و خارج از ریکاوری، بین دو گروه اپی نفرین+ فنتانیل+بپوکائین و فنتانیل+بپوکائین تفاوت معنی‌دار نداشته است (P=میانگین O2SATدر گروه اپی نفرین+ فنتانیل+بپوکائین به طور معناداری بالاتر از 05/0). فنتانیل+بپوکائین بوده است. فراوانی تهوع در زمان ورود به ریکاوری در گروه اپی نفرین+ فنتانیل+بپوکائین بیشتر از گروه فنتانیل+بپوکائین بوده است اما از نظر آماری معنی‌دار نبوده است (P=میانگین درد در 2 ساعت بعد از عمل، بین گروه فنتانیل+بپوکائین و اپی نفرین+ 05/0). فنتانیل+بپوکائین، از لحاظ اماری معنی‌دار بوده است (P= 02/0).

بحث و نتیجه گیری: براساس نتایج گزارش شده استفاده از ترکیب اپی نفرین+ فنتانیل+بپوکائین داخل نخاعی نسبت به ترکیب فنتانیل+ بوپیواکایین تفاوت قابل توجهی در متغیر های بررسی شده علایم حیاتی و تهوع بیماران نداشته است اما میزان درد بیماران در این گروه در ساعاتی از مطالعه نسبت به گروه فنتانیل+ بوپیواکایین به طور معناداری کمتر بوده است.

بیست و چهارمین کنگره ملی و دهمین کنگره بین‌المللی سالیانه پژوهش و فناوری دانشجویان علوم پزشکی کشور

۱۲ تا ۱۴ مهرماه ۱۴۰۲

سالن همایش‌های برج میلاد

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