

Evaluation of the usage of dental students and dentists of Ardabil City of the asana method and related ergonomic principles in dentistry

Abstract

Introduction: Dentists and dental students frequently suffer from musculoskeletal disorders, which can be attributed to poor ergonomic practices. By implementing proper ergonomics, dental professionals can minimize their risk of musculoskeletal disorders. This can lead to longer, more productive careers, as well as lower costs and fewer absences due to injury. To evaluate the use of the asana method and ergonomic principles in dental work, this study was conducted among dental students and dentists in Ardabil City.

Materials and methods: In this cross-sectional study conducted in 2024 in Ardabil city, students in the last 3 years of dentistry at Ardabil University of Medical Sciences and dentists working in the city were interviewed. A three-part questionnaire was designed to evaluate the application of asana principles by dentists and students. The first part of the questionnaire gathers demographic information, the second part covers principles related to appropriate asana postures, and the third part is related to asana exercises. The sample size for the study comprised 142 dentists and 85 dental students. The collected data was analyzed using Chi-square test and One-Way ANOVA.

Results: According to the study, the awareness of ergonomic principles among dental students, dentists, and specialists did not show significant differences (P-value=0.483). Their scores were 35.73%, 36.92%, and 39.71%, respectively. In terms of using asana exercises, the average scores were 7.08, 9.01, and 10.83 out of 47 for dental students, general dentists, and specialist dentists, respectively. there was no significant correlation between their clinical careers and the use of asana exercises (P-value=0.168). The study also found that more than half of the participants (57.6% of students, 50.7% of dentists, and 55.9% of specialists) did not engage in physical activity outside of work. However, 15.3% of students, 25% of dentists, and 29.4% of specialists performed stretching movements while treating patients.

Conclusion: Teaching dental students and dentists the principles of asana can increase their awareness of ergonomics, reduce the incidence of musculoskeletal disorders, and improve the quality of dental services.

Keywords: Dentistry, Ergonomics, Musculoskeletal disorders, Asan