## Abstract

Identifying and prioritizing population interventions and policies based on caries reduction in children and adolescents: a systematic review

**Introduction:** Tooth decay is one of the most common chronic diseases worldwide. Social economic inequality in the use of oral health services, especially in tooth decay, is a challenge for health promotion. By providing the necessary policies, various interventions have been made to reduce caries. This study was conducted with the aim of identifying and prioritizing population interventions and policies based on reducing caries in children and adolescents in a systematic review.

**Materials and methods:** This study included four stages of search strategy, selection of studies and their systematic review, review of entry and exit criteria and finally statistical analysis of data. The search was conducted using relevant English keywords in SID, Scopus, Web of Science MEDLINE/PubMed databases between 2010-2022.

**Results:** Among all the reviewed studies, 911 studies reported interventions and caries reduction policies, and after identification, screening and selection, finally 22 studies were examined based on the research objectives and prisma criteria. The quality of publications was good, average and poor. In the final selected studies, relevant policies and interventions include population-based interventions with fluoride prescription and oral health education, interventions based on improving health behaviors such as brushing, interventions based on schools and curriculum, interventions based on nutrition and oral health education.

**Conclusion:** The results of the study showed that among the policies and interventions related to reducing dental caries, oral and dental health education is used as a suitable factor for designing and implementing oral and dental health interventions and policies. Interventions based on educational models have shown more efficiency and

effectiveness in achieving their goals in the direction of educating the society and changing behavior.

Keywords: caries, interventions, policies, children and adolescents, systematic review