

## PREVENTION OF DENTAL DISEASES IN PRIMARY SCHOOL CHILDREN

**Abduazimova-Ozsoyli L.A**

**Mazifarova K.R**

*Tashkent State Medical University*

Oral and dental health problems are among the most common health issues affecting school-aged children in our country. Dental caries, in particular, is frequently identified among children of school age.

In addition to impairments in growth and development, children with oral and dental health problems experience school absenteeism, difficulties in learning, and problems with concentration.

Giving due attention to oral and dental health during school age contributes in many ways to a healthier lifestyle and is a public health priority in terms of raising healthy generations.

The aim of this article is to evaluate the results of studies on oral and dental health conducted among school-aged children in our country from the perspective of their impact on public health and within the framework of school health services. The findings of the analyzed studies indicate that problems such as dental caries, tooth loss, dental calculus, dental fluorosis, and gingival recession affect the majority of school-aged children in our country.

The results of the reviewed interventional studies demonstrate that dramatization, demonstration, and explanatory methods are effective in developing oral health-promoting habits among school-aged children. School-based oral and dental hygiene education programs are effective in fostering positive health behaviors in children and thus minimizing oral and dental health problems. School nurses play an important role in identifying health problems in school-aged children and in promoting healthy behaviors.

**Keywords:** oral and dental health, child, school health, nurse

Oral and dental health is an important component of overall health and plays a significant role in maintaining it. Problems related to oral and dental health are among the most widespread public health issues worldwide. Due to pain, discomfort, and negative effects on aesthetic appearance, these problems affect individuals not only physically but also psychologically and socially. A healthy mouth enables individuals to speak, eat, and socialize without experiencing illness, discomfort, or embarrassment. Therefore, oral and dental health problems negatively affect quality of life.

Dental caries and periodontal diseases are among the most common oral health problems worldwide. While dental caries affects approximately 90% of the population, oral cancer leads to the deaths of hundreds of thousands of people each

year. In developed countries, the prevalence of these problems has rapidly decreased due to proper oral care practices, improved socioeconomic status and personal hygiene, conscious sugar consumption, expanded dental services, and regular dental check-ups. In contrast, in developing countries, inadequate oral and personal hygiene, unhealthy food and beverage choices, irregular eating habits, limited preventive dental services, infrequent dental visits, and deficiencies in school health services contribute to the persistence—and in some countries, even the increase—of these problems.

In developing countries, including our own, oral and dental health problems are accompanied by economic and social challenges. As these problems increase, the time, effort, and financial costs required for treatment also rise significantly. Considering their impact on public health, research in oral and dental health should be intensified beginning in the early stages of life. School age represents a significant focus of such research due to the large population it encompasses and its wide age range. Numerous studies on oral and dental health among school-aged children have been conducted both in our country and worldwide. The characteristics of studies conducted in our country are largely similar to those carried out in other countries. The results of these studies serve as a guide for health professionals in setting goals and planning preventive interventions within school health services. The purpose of this review is to evaluate the results of studies on oral and dental health among school-aged children in our country from the perspective of public health and in the context of school health services.

Schools, with their physical and social environments, are important institutions for shaping health-related attitudes and behaviors and for collectively delivering health services to large numbers of individuals. During the school years, children are surrounded by peers of the same age and acquire knowledge and behavioral patterns on many issues. Awareness of health problems that negatively affect learning also typically develops during this period.

In our country, the number of school-aged children increases every year. According to the 2024 Turkish Statistical Institute data, children aged 6–14 constitute 15% of the total population. This proportion clearly demonstrates the importance of preventive and therapeutic interventions targeting school-aged children from a public health perspective. Various health problems are inevitably widespread during this broad age period. Growth and developmental delays, vision and hearing impairments, obesity, dental caries, vitamin and mineral deficiencies, and respiratory infections are particularly common during school age.

Studies conducted among school-aged children indicate that oral and dental health is influenced by many factors. These studies have identified associations between dental caries and demographic variables such as gender, age, number of family members, parents' educational level, parents' occupation, income level, and

place of residence. Oral and dental health problems are more common among children whose parents have a low level of education, who live in rural areas, and who belong to lower socioeconomic groups.

Additionally, the literature includes studies demonstrating the impact of toothbrushing habits, dietary patterns, and body mass index (BMI) on oral health status. The amount of toothpaste used, brushing technique, and dental visits are also factors affecting oral and dental health. Children who do not brush regularly, who are unaware of proper brushing techniques, and who frequently consume sugary foods experience oral and dental health problems more often. Therefore, educational programs on oral and dental health for school-aged children play a crucial role in promoting oral health.

School nurses play an extremely important role in identifying, modifying, and promoting health-related behaviors among school-aged children. In developed countries, school nursing is recognized and implemented as a continuous service. In our country, particularly in public schools, such practice is currently lacking. As in other fields, nurses in school health fulfill multiple professional roles, including educator, counselor, manager, and change agent.

Organizing health education activities on topics such as toothbrushing, nutrition, and dental visits falls within the responsibilities of school nurses. From an early age, children should develop regular and proper toothbrushing habits and awareness of auxiliary oral care tools such as dental floss and mouthwash. Ensuring equal access to oral health services, conducting regular dental screenings, and monitoring the outcomes of intervention programs should prioritize the active involvement of nurses. In addition, engaging families, teachers, and school administrators in oral health activities, ensuring healthy nutrition in school cafeterias through cooperation with responsible stakeholders, organizing care and treatment for children with special health needs, and facilitating access to necessary materials and referrals for children from low-income families are also among the responsibilities of school nurses.

Research and projects carried out by nurses both in our country and internationally for the prevention and early detection of oral health problems demonstrate that school nurses are effective members of the school health team, successfully conduct health screenings, manage identified problems, and contribute to the control of health issues through their interventions. However, in our country, due to the lack of a comprehensive and systematic school health program and the absence of nurse employment in schools, extensive data on this subject are limited. It should not be overlooked that research conducted by school nurses and public health professionals can guide policymaking in this field and is of great importance for public health

This review aimed to evaluate the results of studies on oral and dental health conducted among school-aged children in our country from the perspective of public health and within school health services. The reviewed studies show that problems such as dental caries, tooth loss, dental calculus, dental fluorosis, and gingival recession are widespread and affect the majority of school-aged children in our country.

As scientific evidence increasingly demonstrates the relationship between oral diseases and systemic diseases, the necessity of developing oral health services for school-aged children becomes clear. Such services will contribute to improving children's health, preventing health problems in adulthood, and reducing healthcare costs. Since these diseases share common risk factors, a multidisciplinary approach and collaboration between dental professionals and other healthcare workers are essential.

To improve oral and dental health in society, it is first necessary to collect and analyze data on prevalence and risk factors within the relevant community and to set goals aimed at future improvement. Since these goals and preventive methods may vary between communities, research should be conducted across different socioeconomic, demographic, and cultural subgroups.

Incorrect or insufficient health habits observed in children of this age group can be revised and corrected through school-based education, health screenings, and appropriate referrals.

School-based oral and dental health education programs are effective in promoting positive health behaviors among children and minimizing oral health problems. To increase the effectiveness of such programs, it is necessary first to determine children's current knowledge and practices and then develop educational content accordingly. The intervention studies reviewed indicate that dramatization, demonstration, and explanatory methods are effective in improving oral health during school age.

The nationwide implementation of preventive oral health services, identification of groups with limited access to services and timely intervention, and conducting national-level research considering different age groups and socio-demographic and socioeconomic variables are public health priorities. Increasing the number of national studies in this field will enable more accurate data evaluation, appropriate action, and international comparisons.

Policy changes aimed at expanding the employment of school nurses and ensuring the presence of a school health nurse in every school, as well as encouraging school nurses to conduct interventional research, health education, and health screenings with health-promoting reporting, may be effective measures in reducing the prevalence of oral and dental health problems during school age.

**REFERENCES:**

1-Abduazimova-Ozsoyli LA, Dzhalilova ShA, Mazifarova KR. Features of dental caries treatment in infants and preschool children. *Central Asian Journal of Medical and Natural Science*. 2023;4(1):119–122.

2-Abduazimova-Ozsoyli LA. New pathways to a healthy smile: treatment of complicated forms of caries in young patients. *Ta'lim Innovatsiyasi va Integratsiyasi*. 2025;59(3):278–286.

3-Abduazimova LA, et al. *Bulletin of Science and Education. Vestnik Nauki i Obrazovaniya*. (9):87–93.

4-Abduazimova LA, et al. Behavior management of children at the dental appointment: age-related characteristics. *VolgaMedScience*. 2021:689–691.

5-Abduazimova LA. Modern aspects of providing dental care to children. *Aktualnye Voprosy Stomatologii*. 2017:24–28.

6-Abduazimova LA, et al. *Bulletin of Science and Education. Vestnik Nauki i Obrazovaniya*. (9):87–93.

7-Mazifarova KR, et al. Modern view on the problem of dental caries at present. *Problemy Nauki*. 2025;(5(92)):21–25.

8-Mazifarova K, Abduazimov A. Quality issues in orthodontic care delivery. *Aktualnye Problemy Stomatologii i Chelyustno-Litsevoy Khirurgii*. 2021;1(01):109–111.

9-Murtazaev SS, et al. Improvement of early diagnosis and prevention of dental caries in children. *Vestnik Nauki i Obrazovaniya*. 2024;9(152-1):65–68.

10-Murtazaev SS, et al. Prevention of dental diseases during orthodontic treatment in school-aged children. *Theory and Analytical Aspects of Recent Research*. 2024;3(30):75–80.

11-Murtazaev SS, et al. Prevention of dental diseases during orthodontic treatment in school-aged children. *Theory and Analytical Aspects of Recent Research*. 2024;3(30):75–80.

12-Mazifarova KR, et al. Modern view on the problem of dental caries at present. *Problemy Nauki*. 2025;(5(92)):21–25.