



DETERMINING THE PREVALENCE OF DENTAL CARIES AMONG SCHOOL STUDENTS IN FERGANA CITY

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ABSTRACT

This study aimed to determine the prevalence of dental caries among schoolchildren in Fergana city and assess the main risk factors affecting it. As part of a cross-sectional epidemiological study, 420 schoolchildren aged 7–15 years underwent clinical examination. Caries intensity was assessed based on the DMFT index, and a questionnaire was administered on oral hygiene habits and consumption of sweet products. According to the results, the overall prevalence of caries was 68.3%. An increase in caries intensity was observed with increasing age ($p < 0.01$). Frequent consumption of sweet products and lack of regular tooth cleaning were identified as the main risk factors for the development of caries ($p < 0.001$). The results obtained indicate the need to strengthen preventive dental programs among school-age children..

Introduction. Dental caries is one of the most common chronic diseases among children, causing not only pain and aesthetic problems, but also a decrease in overall health and quality of life. According to the World Health Organization, high rates of dental caries in school-age children are considered a global health problem. In the development of caries, unhealthy diet (consumption of sugary products), poor oral hygiene, insufficient fluoride in drinking water, and poor dental prophylaxis are important factors.

The prevalence of dental caries among schoolchildren aged 7-15 in Uzbekistan is high, estimated at over 60%. It is a multifactorial process, with poor nutrition, poor oral hygiene, and inadequate dental care being the main causes.

Key aspects of the prevalence of caries among schoolchildren:

- High prevalence: Studies show that more than half of school-age children suffer from dental caries;
- Causes: The main etiological factors include excessive consumption of sugary foods, improper brushing of teeth, and a lack of fluoride..

Purpose of the study: Determination of the prevalence of caries among schoolchildren in Fergana and assessment of the main factors influencing it.

Materials and methods. The study involved 420 students aged 7-15 from 5 secondary schools in Fergana. The selection was carried out randomly. Written consent was obtained from parents.

Dental status was assessed based on World Health Organization criteria. Caries intensity was determined using the DMFT (Decayed, Missing, Filled Teeth) index.

The following information was obtained from the students:

- Frequency of brushing teeth;
- Consumption of sweet products;
- Frequency of dental check-ups.

The data were processed in SPSS software, and the mean value ($M \pm SD$) and percentages were calculated. $p < 0.05$ was considered statistically significant.

Results. According to the results of the study, the overall prevalence of caries among schoolchildren was 68.3%.

Table 1

By age group

Age	Caries incidence rate (%)	Average DMFT
7-9	54,2%	1,8 ± 0,6
10-12	69,5%	2,6 ± 0,9
13-15	78,4%	3,4 ± 1,2

The caries rate was observed to increase with age ($p < 0.01$).

Hygienic habits of schoolchildren:

- Caries in those who brush their teeth twice a day — 49%;
- Once a day — 72%;
- In those who brush incorrectly or not regularly — 85%.

It was found that children who consumed sweets more than 4 times a week had significantly higher DMFT scores ($p < 0.001$).

Discussion. The results of the study showed a high prevalence of caries among schoolchildren in Fergana. The increase in the intensity of the disease with age is explained by the eruption of permanent teeth and the weakening of hygienic control.

Frequent consumption of sugary foods has been confirmed as a major risk factor for the development of caries, while regular and proper dental cleaning has been shown to be a protective factor.

The results obtained are consistent with epidemiological studies conducted in other regions and indicate the need to strengthen prevention programs in schools.

Conclusion. The prevalence of dental caries among schoolchildren in Fergana is high (68.3%). The main risk factors are high consumption of sweet products and poor oral hygiene.

To prevent caries, it is necessary to strengthen the promotion of regular preventive dental examinations and adherence to hygiene rules, as well as take measures to improve proper nutrition and oral hygiene.

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