



**PREVALENCE AND SOCIO-HYGIENIC DETERMINANTS OF DENTAL DISEASES
AMONG ADOLESCENT GIRLS**

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Abstract: Dental diseases remain one of the most widespread chronic health problems among the general population, especially among adolescents. The study aims to assess the prevalence and structure of dental diseases among girls of puberty age and to identify the socio-hygienic and behavioral factors influencing their occurrence. A total of 1,580 adolescent girls from Urgench city, Bogot, and Yangibozor districts were examined through dental and sociological methods. The results showed that dental caries and periodontal diseases are predominant, and their distribution strongly depends on living conditions, dietary habits, and oral hygiene awareness. These findings emphasize the importance of preventive measures and public health programs focused on adolescent oral health.

Keywords: adolescent girls, dental diseases, prevalence, oral hygiene, socio-hygienic factors, prevention.

Introduction

Oral health is an essential component of overall well-being and quality of life. The prevalence of dental diseases among adolescents has become a serious concern worldwide. During puberty, significant physiological and hormonal changes occur in the body, influencing the structure and function of oral tissues. In addition, unhealthy dietary patterns, low oral hygiene culture, and limited access to dental services contribute to a high incidence of dental diseases in this age group.

The oral health status of adolescent girls is a particularly important public health issue. This period is characterized by increased susceptibility to dental caries, gingivitis, and other oral disorders due to the combined effect of physiological changes and behavioral risk factors. Understanding these relationships provides a foundation for developing effective preventive and organizational strategies in dentistry.

The aim of this study is to determine the prevalence of dental diseases among adolescent girls in the Khorezm region and to analyze the impact of socio-hygienic factors such as living conditions, dietary habits, and oral hygiene behavior on their dental health.

Materials and Methods

The study was conducted between 2025 and 2026 at Urgench State Medical Institute in collaboration with local health institutions. A total of 1,580 girls aged 12–18 years participated, including 595 from Urgench city, 494 from Bogot district, and 491 from Yangibozor district.

Data Collection Methods



1. Dental Examination: Objective clinical assessment of the oral cavity, including evaluation of teeth, gums, and hard tissues, using WHO diagnostic criteria.
2. Questionnaire Survey: Assessment of lifestyle, hygiene behavior, dietary preferences, and frequency of dental visits.
3. Statistical Analysis: Data were processed using standard descriptive statistics and percentage analysis.

The inclusion criteria were: being a resident of the studied region, aged 12–18, and having no systemic diseases that could affect oral health. The study followed ethical guidelines and obtained informed consent from participants and their parents.

Results

The overall prevalence of dental diseases among adolescent girls was found to be 72.4%.

Among all diagnosed conditions:

- * Dental caries accounted for 64.7%,
- * Gingivitis and periodontal diseases — 18.2%,
- * Dental calculus and enamel erosion — 10.1%.

Only 27.6% of the examined girls had no visible signs of dental pathology.

Socio-hygienic Determinants

The analysis demonstrated a strong correlation between the prevalence of dental diseases and socio-economic conditions:

- * In families with higher income and better living standards, the rate of dental diseases was around 41%,
- * In low-income families, it reached 79%.

Regarding oral hygiene behavior:

- * Only 36% of respondents brushed their teeth twice daily,
- * 44% brushed once daily,
- * 20% did not follow regular brushing habits.

Dietary habits also influenced oral health. High consumption of sweets and carbonated drinks was reported by 68% of participants. Those who consumed fruits, vegetables, and dairy products regularly had significantly fewer dental problems.

Regular dental check-ups were rare — only 23% of respondents visited a dentist for preventive care, while the rest sought help only in case of pain or visible damage.

Discussion

The findings confirm that the prevalence of dental diseases among adolescent girls in the Khorezm region remains alarmingly high. The results are consistent with global observations that dental caries is the most common chronic disease among children and adolescents.

The socio-hygienic determinants revealed by this study indicate that dental health is not only a medical but also a social problem. Poor oral hygiene habits, limited health literacy, and inadequate preventive education play a decisive role in the persistence of these conditions. In particular, the lack of awareness about proper tooth brushing techniques and the importance of regular dental visits are key modifiable factors.

Furthermore, the study emphasizes the role of school and family in forming healthy behaviors. Many participants noted that they received little or no instruction on oral hygiene at home or at school. This demonstrates the need to integrate oral health education into school health programs. Another important observation concerns the influence of nutrition. Excessive sugar consumption and irregular eating patterns contribute to both dental and general health problems among



adolescents. Promoting healthy dietary habits should therefore be part of comprehensive preventive dentistry.

Conclusion

The results of this study indicate that dental diseases among adolescent girls in the Khorezm region are highly prevalent, and their occurrence is closely related to socio-hygienic and behavioral factors. Poor oral hygiene practices, limited awareness, and unhealthy dietary patterns significantly contribute to the development of dental caries and gingival diseases. The findings emphasize that oral health education and preventive measures must begin early, particularly in school settings, where health habits are first formed. Regular dental check-ups, access to preventive care, and active parental involvement are essential components of improving oral health outcomes. It is also important to develop regional public health programs that promote hygiene education, balanced nutrition, and early detection of oral pathologies. Enhancing adolescents' awareness of personal responsibility for oral health and supporting community-based preventive initiatives can substantially reduce disease prevalence and improve the overall quality of life of young girls.