

ANALYTICAL RESULT OF DENTAL CARIES PREVENTION

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Annotation. Preventive approaches to oral health diseases, mainly dental caries, require individual and collective policies. Thus, this review was conducted to identify the primary prevention methods of dental caries in adults to improve oral health at the clinical and community levels.

Keywords: primary prevention, adult, oral health, dental caries

АНАЛИТИЧЕСКИЙ РЕЗУЛЬТАТ ПРОФИЛАКТИКИ КАРИЕСА ЗУБОВ

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Аннотация. Профилактические подходы к заболеваниям полости рта, в основном кариесу зубов, требуют индивидуальной и коллективной политики. Таким образом, этот обзор был проведен с целью выявления методов первичной профилактики кариеса зубов у взрослых для улучшения здоровья полости рта на клиническом и общественном уровнях.

Ключевые слова: первичная профилактика, взрослые, здоровье полости рта, кариес зубов

TISH KARIESINI OLDINI OLISHNING TAHLILIY NATIJASI

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Annotatsiya. Og‘iz bo‘shlig‘i kasalliklariga, asosan, tish kariyesiga qarshi profilaktika yondashuvlari individual va jamoaviy siyosatni talab qiladi. Shunday qilib,

ushbu ko'rib chiqish og'iz bo'shlig'ini klinik va jamoat darajasida yaxshilash uchun kattalardagi tish kariesining asosiy oldini olish usullarini aniqlash uchun o'tkazildi.

Kalit so'zlar: birlamchi profilaktika, kattalar, og'iz bo'shlig'i salomatligi, tish karies

Introduction. Everyday activities such as eating, talking, smiling, and contributing to society are included in a person's well-being. Therefore, oral health is currently understood to be an integral part of overall health and well-being [2]

Health promotion programs are effective if based on a holistic perspective of health, empowering citizens to manage their health, promoting equitable access to information, and leading to the adoption of healthy lifestyles [7]. Thus, several primary prevention methods applicable to oral health can be developed among adults, including behavioral factors, such as regular tooth brushing, dental flossing, a balanced diet, and regular dental checkups. These factors significantly reduce the risk of oral disease [8,9,10].

Developing preventive interventions at the primary prevention level can lead to potentially sustainable normative support for oral hygiene, locally tailored and targeted approaches, and ongoing positive changes in specific oral health practices. Such interventions can reduce the short- and long-term psychosocial and economic costs associated with disabling oral health problems and help prevent the exacerbation of chronic and disabling diseases [5,8,9].

In the context of dental caries prevention, it is crucial to examine the specific knowledge, attitudes, and behaviors of individuals towards oral health [12]. Such information is helpful for understanding what should be taught and which behavioral changes are necessary for the improvement of oral health and for developing effective strategies in educating children about good oral health habits [13]. Consequently, the present study aims to address this limitation by incorporating a theoretical framework to explore the knowledge, attitudes, behavior, and dental caries prevention practices among patients.

One of the most significant oral health issues worldwide is dental caries, which result from the interaction between bacteria and fermentable carbohydrates and can lead to the destruction of the hard parts of teeth [1]. Despite being preventable, dental caries

remain prevalent, affecting approximately half of the world's population, or 3.5 billion people, with 40% of cases going untreated [2]. Unfortunately, dental caries has become a serious global public health concern, with a high incidence of cavities among both children (60–90%) and adults (100%), frequently causing discomfort and pain [3].

Materials and methods

Question naire

The validated questionnaire was adapted from previous cross-cultural studies [2,12]. Five sections of the questionnaire examined participants' caries prevention knowledge, attitudes, and practice. Knowledge, attitudes, practice, and dental caries prevention knowledge were covered.

Inclusion Criteria

Patients were required to meet inclusion criteria, including voluntary participation, regular dental hospital treatment, and informed consent.

Exclusion Criteria

To ensure participant selection and study integrity, exclusion criteria were applied. Patients under 17 years old, unable to comprehend the study's purpose, participants involved in other research or clinical trials, severe systemic diseases, and pregnant females were excluded due to potential medication influence on dental health and treatment outcomes.

Statistical Analysis

Responses to the socio-demographic characteristics, knowledge, attitude, and practice sections of the questionnaire were analyzed using a frequency distribution analysis. The mean and standard deviation of the knowledge, attitude, and practice scores were calculated using descriptive analysis.

Results

In this study, 151 patients who fulfilled the inclusion criteria voluntarily participated. Among the respondents, 66 (43.7%) were male, and 85 (56.3%) were female. The majority of the patients (32.3%) belonged to the 17–25 age group. Furthermore, almost 80.4% of patients had obtained a college education, and 62.8% were employed. Lifestyle and dietary habits were observed to be mostly consisting of the consumption of sweet food (34.6%), as well as smoking and drinking alcohol (25.3%). The marital status

of the participants was found to be 53.8% married and 46.2% unmarried. The socio-demographic characteristics of the participants are provided.

In the survey, most of the patients had a good level of knowledge regarding preventive measures against dental caries. Most respondents believed that tooth infections (81.3%), bacteria (92%), and sugar (89.2) could cause gum bleeding and tooth decay. They also found brushing (96%) and fluoride (80.5%) useful in preventing tooth decay and protecting teeth. Additionally, respondents believed that oral diseases (94%) could impact overall health. The majority learned about oral health from their dentist or the internet.

The results show that most of the respondents have a good level of positive attitudes regarding preventive measures against dental caries. The survey indicates that a high percentage of respondents, ranging from 93.4% to 97.0%, believe that oral health is essential to good overall health. They also believe that regular check-ups, maintaining oral health, and proper brushing habits are beneficial to their health. In particular, improper brushing habits were associated with gum disease and tooth decay. The majority (93.5%) believed that brushing teeth twice a day improves oral hygiene.

The majority of respondents (86.3%) knew that caries could be prevented, and 90.2% recognized the link between oral hygiene and dental caries. Flossing was recognized as a preventive measure by 73.9% of patients, while 84.7% knew that frequent sugar consumption is associated with dental caries. Topical fluoride applications were acknowledged as a preventive measure by 70.6%, and fissure sealants by 63.5% of patients. Table 1 presents the prevalence of correct knowledge related to preventive dental caries among patients.

Table 1.

Preventive Dental Knowledge	Frequency(%)
Do you know dental caries can be prevented	86.3
Do you know dental caries is related to oral hygiene	90.2
Do you know flossing can prevent dental caries	73.9
Do you know dental caries is related to sugar intake	84.7
Do you know topical fluoride can prevent dental caries	70.6
Do you know fissure sealant can prevent dental caries	63.5

Discussion

Several statistically significant associations between dental caries prevention and socioeconomic factors were found, suggesting that the hypothesis is correct. The majority of survey participants, as shown by the present study's findings, blamed tooth infections, bacteria, and sugar for gum bleeding and tooth decay.

The fact that respondents thought oral diseases could affect general health is significant because it demonstrates the connection between oral health and overall health. Several systemic diseases, such as cardiovascular disease and diabetes, have been linked to poor oral health, and studies support this finding.

The finding so far study showed that the majority of patients had a good

Understanding of the importance of oral hygiene and dental caries prevention. This is encouraging, as education plays a crucial role in promoting good oral health practices.

Most of the patients in our study were aware that sugar consumption could lead to dental caries. However, many believed that simply brushing their teeth after consuming sugary foods and drinks before bedtime was sufficient to protect their teeth [41]. This highlights the need to educate patients on the importance of minimizing sugar consumption and adopting other preventive measures, such as regular dental check-ups and good oral hygiene practices. More than half of the patients also recognized the preventive benefits of topical fluoride application and fissure sealants. This is likely due to the regular visits to dental clinics or hospitals where they learned about these procedures from their dentists.

Dentists play an important part in this context by educating and assisting patients in achieving good oral health. Dentists have a responsibility to educate their patients about the importance of maintaining good oral hygiene, including the best ways to brush and floss, the connection between diet and dental health, and the negative effects of sugar consumption. Oral health professionals have a responsibility to inform patients about the range of options available for preventative care and treatment, including fluoride toothpaste.

Conclusions

Regular dental check-ups are undoubtedly important for maintaining good oral health and preventing dental caries. However, it is equally crucial for individuals to take

responsibility for their own oral care at home as a preventive measure against oral diseases such as caries. Dentists play an important part in this context by educating and assisting patients in achieving good oral health.

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