

COMPARATIVE STUDY OF THE LEVEL OF DENTAL HYGIENE KNOWLEDGE AMONG INDIVIDUALS WITH HEARING IMPAIRMENT

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Abstract. *The study is devoted to assessing the level of dental hygiene knowledge among individuals with hearing impairment. The data obtained from a survey of 300 respondents was analyzed. The frequency of visiting the dentist, awareness of professional hygiene, use of additional care products, and motivation to receive recommendations were assessed. Insufficient knowledge, low frequency of use of additional hygiene products, and poor awareness of the role of dental hygienists were established. The results emphasize the need to develop targeted preventive programs adapted to the needs of this group.*

Key words: *level of knowledge, dental hygiene, persons with hearing impairment, prevention, dental hygienists, survey.*

Introduction. The dental health of a significant part of the population remains at risk due to insufficient levels of hygiene knowledge and preventive activity. People with hearing impairments have specific barriers in accessing information on oral hygiene, which can lead to increased morbidity. This group is characterized by a special perception of the surrounding world, which requires the use of adapted educational approaches in the prevention of dental diseases.

Scientific data on the level of dental hygiene knowledge in individuals with hearing impairments remain limited. This makes it difficult to develop effective preventive programs aimed at improving hygiene behavior and reducing the risk of dental diseases in this group.

The aim of the study was to conduct a comparative analysis of the level of dental hygiene knowledge in individuals with hearing impairments to identify key gaps in awareness and develop recommendations for improving preventive dental care.

Materials and methods. The study included a comparative analysis of the level of dental hygiene knowledge among 300 adult respondents with hearing impairment aged 18 to 55 years. The main inclusion criteria were the presence of a diagnosed hearing impairment, residence in the region under study, and voluntary informed consent to participate. Persons with severe concomitant diseases and respondents who refused to participate were excluded.

Data were collected using a standardized questionnaire aimed at studying the frequency of visits to the dentist, the level of knowledge about professional hygiene, the use of additional care products, and methods for choosing oral hygiene products. The survey was conducted individually in medical institutions in compliance with a unified protocol.

Data processing included statistical analysis aimed at quantitatively assessing the responses and identifying patterns in the level of knowledge and hygiene habits of respondents. Descriptive statistics and correlation analysis methods were used to increase the reliability of the analysis. The results are presented in a structured form to assess the key characteristics of the study group.

Literature review. The issue of dental health of people with hearing impairments is of considerable interest to modern dentistry. Scientific studies show that the prevalence of dental diseases in this group is associated with limited access to specialized information and insufficient knowledge of oral hygiene [1]. These factors are aggravated by insufficient frequency of visits to dental offices, which complicates the prevention and early detection of diseases [2].

A comparative analysis of dental awareness of various social groups shows that people with hearing impairments are less informed about methods of professional oral care. They rarely use additional hygiene products such as floss, rinses and interdental brushes [3]. This leads to an increased incidence of caries and periodontal disease, which is confirmed by a number of epidemiological studies [4].

Modern approaches to prevention in dentistry emphasize the importance of adapted educational programs. For individuals with hearing impairments, methods of visualizing information and the introduction of interactive tools, such as video materials with subtitles or in sign language, are proposed [5]. These measures contribute to increasing the level of dental knowledge and the development of sustainable oral care habits [6].

The level of awareness of the role of dental hygienists among this category remains extremely low, which limits the possibility of receiving professional care recommendations [7]. This is supported by research data, according to which the vast majority of respondents with hearing impairments are unaware of the existence of such specialists and do not seek advice [8]. These results highlight the need to increase awareness of the possibilities of professional assistance.

An important area of research is the development of comprehensive preventive programs that take into account the peculiarities of information perception in people with hearing impairments. The use of integrated approaches, such as a combination of visual aids, direct interaction with specialists and regular monitoring of the oral cavity, shows high efficiency in this group [9].

These data support the need for further study of factors influencing the dental health of individuals with hearing impairment and the implementation of targeted preventive strategies to reduce the incidence of the disease.

Results and discussion. The study analyzed the level of dental hygiene knowledge among 300 respondents with hearing impairments aged 18 to 55 years. The questionnaire allowed us to assess the frequency of visits to the dentist, the use of oral care products, and the level of awareness of professional hygiene. The data obtained were statistically processed.

The frequency of visits to the dentist was low: only 12% of respondents visit a specialist once every six months, 42% visit the doctor when necessary, and 46% less than once a year. Knowledge of professional oral hygiene was confirmed by 30% of participants, the remaining 70% were unaware. Additional hygiene products (dental floss, irrigator, rinses) are used by 25% of respondents, while 75% limit themselves to using only a toothbrush.

Table 1.

Characteristics of hygiene habits and knowledge of respondents

Indicator	Meaning (%)
Regular visits to the dentist (once every 6 months)	12
Visiting a dentist when necessary	42
Less than once a year	46
Occupational Health Awareness	30
Lack of awareness of occupational hygiene	70
Use of additional hygiene products	25
Refusal to use additional funds	75

The data show a lack of knowledge about dental disease prevention. Only 18% of respondents are aware of the existence of dental hygienists and their functions. However, 84% expressed willingness to receive oral care recommendations, indicating a high interest in educational initiatives among the target audience.

The obtained results highlight the need to develop targeted prevention programs oriented towards the specific needs of this group. Such programs should take into account the peculiarities of

information perception by people with hearing impairments and include visual materials, infographics and video formats. In addition, it is important to integrate professional consultations within the framework of regular dental examinations to improve oral health and reduce the prevalence of dental diseases.

Conclusion. The results of the study revealed a low level of dental hygiene knowledge and insufficient preventive activity among people with hearing impairment. The main problems remain infrequent visits to the dentist, insufficient use of additional oral care products and low awareness of professional hygiene. At the same time, a high percentage of respondents expressed interest in receiving professional recommendations, which confirms the importance of developing targeted educational programs.

To improve the dental health of this population group, it is recommended to introduce adapted preventive measures, including visual and interactive materials, as well as greater involvement of dental hygienists. These measures will reduce the incidence of dental diseases and improve the quality of life of people with hearing impairment.

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