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ЗАБЛУЖДЕНИЯ В СТОМАТОЛОГИИ: ПОСЛЕДНИЕ УТОЧНЕНИЯ
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MISCONCEPTIONS IN DENTISTRY: ULTIMATE REVISIONS
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Резюме: Проблемы гигиены полости рта до сих пор актуальны в обществе, поэтому была проведена научная работа, цель которой: оптимизация знаний населения по уходу за полостью рта, пересмотр результатов научных исследований и их актуализация в виде электронного тьюториала.

Ключевые слова: ошибочное мнение, зубная щетка, концентрация фтора, отбеливание зубов.

Resume. The problems of oral hygiene are still relevant in society, so a study was carried out with the aim of optimising the population's knowledge about oral care, reviewing the results of scientific research and updating them in the form of an electronic tutorial.

Keywords: misconception, toothbrush, fluoride concentration, teeth whitening.

Relevance. The field of dentistry, like many other medical disciplines, is often surrounded by misconceptions that can influence patient's perceptions and treatment decisions. Understanding the origins and implications of these misbeliefs is crucial for dental professionals, as it not only affects patient's education but also impacts the effectiveness of treatment protocols.

Objective: this paper is aimed at exploring common misconceptions in dentistry, analyzing their origins, and discussing their effects on patient's behavior and dental health.

Materials and methods. Since misconceptions are false beliefs that can accompany a person throughout their life, we became interested in whether views on dental procedures and methods differ among people. An electronic survey which included the questions about the safety of hard toothbrushes, teeth whitening safety and fluoride concentration in the toothpaste was conducted. The respondents were divided into four groups:

1. dental students;
2. non-medical students [17-23 years old];
3. middle-aged [30-45 years old];
4. elderly people [60-70 years old] as they have problems with their teeth.

Results and their discussion. Table 1 shows the results of the survey conducted.

Tbl. 1. The survey results

Beliefs	Dental students (18-23)		Non-medical students (17-23)		Middle-aged group (30-35)		Elderly (60-70)	
	Yes, %	No, %	Yes, %	No, %	Yes, %	No, %	Yes, %	No, %
Hard toothbrushes	2	98	52	48	64	36	72	28

Continuation of table 1

Harm of fluoride	34	66	46	54	76	24	84	16
Teeth whitening	74	26	48	52	36	64	14	86

Safety of hard toothbrushes. The survey results revealed a sharp percentage difference in the choice of toothbrush bristle hardness: an overwhelming majority of dental students (98%) prefers soft toothbrushes, while the older generation (72%) favors hard bristles. For most people who do not have indications for using a hard toothbrush, it poses a threat. Possible consequences include microscopic cracks, irritation and enamel erosion, which can lead to serious conditions such as periodontitis and stomatitis, sometimes requiring surgical intervention.

A hard toothbrush should only be purchased on the recommendation of a dentist. Sensitive teeth, frequent gum inflammation and bleeding, enamel defects, or cracks make hard toothbrushes inadvisable. Patients with periodontitis, where excessive plaque buildup and inflamed gums require a gentler and more specialized approach to oral care should opt for a soft toothbrush.

People with blood clotting or wound-healing issues (such as those with diabetes, leukemia, hemophilia, or those taking anticoagulants) should also avoid hard toothbrushes, as they can increase the risk of bleeding and slow wounds healing.

In patients with veneers, crowns, or fillings, a hard toothbrush can create microcracks and gaps in the material's surface, making it easier for plaque to accumulate.

Hard toothbrushes are not recommended after dental implantation. They can easily damage more sensitive gum tissue around the implant, increasing the risk of infection. This could lead to inflammation, which may spread to the surrounding tissues and cause implant rejection [2].

Fluoride concentration in toothpastes. There is an ambiguous attitude in the society towards the safety of fluoride compounds in toothpastes. The middle-aged group has negative opinion towards fluorides (76%), in the elderly group (84%), in the group of non-medical students the results are mixed (46/54), and dental students (66%) are against it.

The fluoridation procedure is carried out for preventing cavities. Scientific papers confirmed the dangers of excessive fluoridation of toothpaste and identified hazardous doses of fluoride. Fluoridated toothpaste is only dangerous in cases of excessive consumption and if you live in a region, where the fluoride content in water is above normal.

The concentration of fluoride ions in natural waters varies in different parts of the world. According to the World Health Organization (WHO), the use of fluorides is recommended as the only effective method of preventing dental caries in areas with low fluoride content in drinking water. The normal fluoride content is in a concentration of 0.5 to 1 mg per liter.

In the Republic of Belarus, the fluoride content in drinking water is extremely low: 0.1-0.4 mg/L, with a normal ratio of 0.8-1.2 mg/L, so using fluoride toothpaste is safe. However, there is a village called Vyazye, where residents suffer from the consequences of excessive fluoride concentrations in drinking water. A fluorosis focus was discovered there and the reason is high content of fluoride in local water ([F] =

5,5 mg/L). The source of water lies 169 m deep. The water supplies the system that has been serving one of the village streets for the last 29 years. All of the 12 teenagers living in the street since their early childhood have teeth affected by fluorosis [1].

An excess of fluoride in the body can lead to irreversible consequences. It is very important to monitor the amount of toothpaste your child uses. Many toothpaste brands specify this information on their packaging. Several manufacturers offer toothpaste specifically designed for regions with high or low fluoride levels.

Teeth whitening. According to the survey results, there are many opponents of teeth whitening among older individuals (86%) and in the middle-aged group (64%). Non-medical students (52%) and dental students (74%) support whitening procedures. The results can be explained by the fact that dental students know safe teeth whitening techniques [3]. They include:

1. Airflow. This method is considered the safest teeth whitening procedure in dentistry. Air-Flow cleaning involves the removal of plaque using a jet of air with water and soda particles. The jet is applied to the teeth from a special device under high pressure and literally sweeps away all plaque, polishing the teeth and making them cleaner.

2. Laser whitening. A fairly new procedure of laser teeth whitening is becoming increasingly popular due to its safety and high efficiency. The result of laser procedure depends on the intensity of the rays. For children, gentle treatment is used, which is safe for teeth and the body. After the treatment, the enamel is lightened by 3-5 shades. An adult patient can attend a more effective procedure with bleaching up to 10 shades and preserving the result for 5 years.

3. Zoom. By analogy with laser bleaching, Zoom photo bleaching is performed. The procedure is considered safe, but due to the use of a specific gel, it is not recommended for children with baby teeth. The main task of photo bleaching is to lighten the enamel, not to clean it.

Conclusions:

1. Misconceptions regarding oral hygiene and dental procedures have been found to persist in certain social groups. Statistics show that the awareness of dental students is higher than that of students from other universities.

2. Debunking the existing misbeliefs requires a comprehensive approach, including educational work among the population and active use of modern media.

Literature

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