Oral Health Knowledge among Healthcare Personnel in Arad, Romania

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Abstract

Oral health reflects health in general, being an important indicator of knowing the determinants of health. This study examines the knowledge of oral health and oral hygiene habits among 144 respondents. Methods: The study was based on 15 questions, data being processed by IBM SPSS Statistics. Results: only one question received the correct answer unanimously, the percentages of correct answers to the others being variable between 4.9-98.5% ($p \leq 0.001$). The better oral health knowledge ($p \leq 0.001$) it was related to fluoridation, visits to the dentist, gingivitis prevention and ideal toothbrush, while other subjects were disappointingly poorly known. Conclusion: the results show that oral ealth education must be continuous, especially among health workers, who also have the role of trainers of the general population regarding the determinants of health status.

Keywords: knowledge; oral health; oral hygiene

INTRODUCTION

Oral health can be defined as a standard of health of the oral and related tissues, which enables an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well-being [1]. Oral health has been documented as equally important as general health. Moreover, knowledge about oral health has been cited as an important factor that determines overall health [2]. Treatment of the dental diseases involves high costs like many other diet and health related diseases [3]. Oral health is an integral part of overall health, and each influences the other [4]. Improper diet, smoking, alcohol intake, and poor oral hygiene practices are the most significant factors influencing the occurrence of various oral diseases [5]. Diet affects the development of dental caries, dental erosion, periodontitis, oral cancer, and many other diseases of the soft tissues of the oral cavity [6]. Smoking has been linked to oral cancer, gingival and periodontal disease, periimplantitis, tooth discoloration, halitosis, taste bud changes, and difficulty healing wounds after surgery. High alcohol intake is associated with an increased risk of developing oral cancer or other potentially malignant disorders, periodontitis, dental caries, and xerostomia. Poor oral hygiene can lead to the development of dental caries and periodontitis, and is also associated with heart disease, cancer, and diabetes [7]. The most effective method for preventing dental caries or periodontitis is the removal of dental plaque by regular and proper mechanical cleaning of the teeth, a key step in maintaining oral health [8].

Aim and objectives

To determine oral health awareness among Healthcare Personnel in Arad.

MATERIALS AND METHODS

The study sample consisted of 144 subjects selected using a simple random sampling technique. Individuals older than 18 years of age were included in the study. The purpose of the study was informed and explained to the participants and those who voluntarily agreed to participate in the study and gave a written consent were asked to fill the questionnaire according to the response format provided in the questionnaire.

A self-made closed ended questionnaire was given to each one of them, in July 2022. The questionnaire form includes 15 questions regarding the knowledge, attitude and practices related to oral health.

Statistical analyses. The data was first transferred to Microsoft Excel and IBM SPSS Statistics. For data analyses, each positive response was given a score '1' and each negative response was assigned a score '0'. Results were statistically analyzed using SPSS package in terms of percentages, depending on gender and age category, under 30year-old and over.

RESULTS

This study was carried out on 144 subjects. Among them, 54.9% were males (n=79) and 45.1% were females (n=65). Most of them were living in urban area, 73.61% (n=106). All the subjects were above 18 years of age, age ranged 21-54. The number of subjects in 21-30 age group was maximum, 104 (72.2%). Mean age was 29.48, Std. Deviation 5.818 Regarding their education background, these 104 responders were having education up to short-cycle tertiary education.

The worst result was recorded for the question regarding gingival bleeding during usual tooth brushing, only 4.9% (n=7) admitting that gum bleeding can occur normally,

without pathological significance. Less than a third know how to brush their teeth correctly and only half of them brushed their teeth twice a day (n=77). Replacing the toothbrush every 3 months is the usual practice only for 61.8% (n=89) and 70.1% (n=101) consider the carious process as non-transmissible, table 1.

Table 1. The least known notions of oral health practice, percentages of correct answers

Question	%	under30	over30	F	M
Bleeding gums is normal when brushing our teeth	4.9	5.1	4.4	6.2	3.8
The correct tooth brushing	28.5	23.2	40	23.1	32.9
Brushing our teeth in 24 hours	53.5	49.5	62.2	55.4	51.9
When should the toothbrush be changed	61.8	61.6	62.2	78.5	48.1
Carious processes can be transmissible	70.1	67.7	75.6	64.6	74.7

The following set of 5 questions were solved correctly especially by respondents under 30year-old, compared to those over 30year-old. Only 75.7% (n =109) know that dental caries have different etiologies, germs having their non-exclusive role; also 111 (77.1%) responders admit that parents' oral health influences theirs children' oral health. Only 118 recognize the role of the profession in oral health (81.9%), 84.7% (n= 122) know that non-alcoholic mouthwashes are recommended. The infectious etiology in gingivitis is recognized by130 responders (90.3%), table 2 and imagine 1.

Table 2. The generally known elements of oral health, percentages of correct answers

Question	%	under30	over30	F	M
Caries are caused only by germs	75.7	78.8	68.9	84.6	68.4
Parents' oral health influences children' oral health	77.1	82.8	64.4	84.6	70.9
Profession can influence the patient's oral health	81.9	82.8	80	78.5	84.8
Recommended mouthwashes	84.7	85.9	82.2	78.5	89.9
Germs are causing gingivitis	90.3	88.9	93.3	89.2	91.1

A visit every 6 months to the dentist is important for 91.7% (n=132). Fluoridation is essential to prevent carious processes (n= 137) and 141 of the responders admit that brushing teeth is preventing gingivitis. The same percent of oral health importance for human health 97.9% it is surpassed only by knowing the ideal type of toothbrush to be used, table 3.

Table 3. The bestknown notions of oral health, percentages of correct answers

Question	%	under30	over30	F	M
How often is it recommended to visit the dentist	91.7	92.9	88.9	90.8	92.4
Fluoridation is useful to prevent carious processes	95.1	93.9	97.8	93.8	96.2
Brushing teeth is useful to prevent gingivitis	97.9	97	100	95.4	100
Oral disease can affect human health	97.9	97	100	98.5	97.5
The ideal toothbrush	100	100	100	100	100

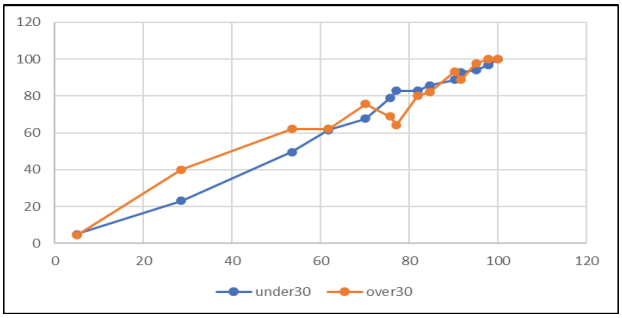

Figure 1. Comparison of correct answers, in percentages, depending on age category

DISCUSSIONS

The positive oral health behaviors and attitudes of under 30year-old category, could be explained by the generally greater concern about appearance in younger people, who are more likely to visit a dentist and to educate themselves about oral health. Periodic dental examinations are important in preventing oral diseases, educating patients, and encouraging the maintenance of good oral hygiene [9]. A study conducted in China in 2019 on a sample of 263 middle-aged respondents found a significant link between age, low educational level, and poor oral health. This also affected oral health knowledge, with respondents of lower socioeconomic status showing a lower level of oral health knowledge. Poor knowledge of oral health is associated with poor oral hygiene and a higher number of lost teeth [10]. In a study by Peltzer and Pengpid on a sample of 19,560 undergraduate students from 27 universities in 26 countries in Asia, Africa, and America, the results showed that 67.2% of students brush their teeth twice or more times a day, 28.8% approximately once a day, and 4.0% never. The prevalence of brushing teeth less than twice a day appears to be higher among students in low- and middle-income countries than in high-income countries; e.g., 52.2% in India, 35% in Lebanon, 32% in Turkey compared with 7.9% in Italy, or 25% in the United States [11].

More than half of our respondents (61.8%) change their toothbrush every three months. Most respondents (53.8%) of a survey of the Military College in Bucharest change their brush every three months, and 34.3% once a month [12], while in Zagreb, 48.3% of students use the same brush for less than three months [13].

CONCLUSIONS

In general, the results showed good oral health knowledge among healthcare personnel, but education on this topic is a fundamental "must" for understanding and maintaining of oral health. The awareness about oral hygiene and dental health needs to be spread by dental professionals.

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