

EVALUATION OF ORAL HEALTH BEHAVIOR IN DENTIST STUDENTS

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Abstract

The accumulation of knowledge and attitudes related to oral health, mainly the prevention, control and treatment of dental diseases, is very important during the training of future dentists. Material and methods: The study group is represented by 180 subjects from the Faculty of Dentistry and the College of Dental Technology. In order to make a correlation between the state of oral health, the level of knowledge in the medical field and the way of application in practice, we used questionnaire used by Al-Omiri and collaborators and an adapted version of the Hiroshima questionnaire. Results and discussion: The results obtained showed that most of the students participating in the study care about their oral health. The HU-DBI score was an average of 3,924 for students in the Faculty of Dentistry and 2,293 for students in the College. Conclusion: The level of academic training influences the oral health behaviour.

Key words: oral health behavior, Al-Omiri questionnaire, Hiroshima questionnaire.

Introduction

In recent years, a significant decrease in the prevalence of dental disease has been observed in most developed countries. Most authors attribute these changes to improved oral health, the abandonment of unsanogenic habits and, in particular, to the widespread use of fluorinated substances and fluoride toothpastes. These changes are also influenced by the work of dental professionals who play an important role in improving the level of oral health education.

In the last fifty years have seen a reduction in the severity and prevalence of oral conditions among the population of developed countries. Dental care has been systematically organized in order to improve attitudes in the field of dental health among children and young people. For this reason, the accumulation of

knowledge and attitudes related to oral health, mainly the prevention, control and treatment of dental diseases, is very important during the training of future dentists. This leads to a change in the approach to oral health problems, an approach that is mainly focused on prevention and not on invasive treatment (2, 7, 14, 18).

The process of adopting this change of attitude in dentistry must be learned and practiced throughout the training process as a future doctor, especially during university studies. This change in attitude is all the more important as most future physicians believe that there is no agreement between what is learned to be properly applied as a dental treatment and what can be put into practice depending on the complexity/clinical case. Therefore, a study

on how students in the Faculty of Dental Medicine apply the knowledge gained during the years of study to their own oral health care system could be of great value since they are the ones who will explain the same models of own patients' behavior during future medical practice.

The data in the literature show that the concern for health of students at a medical school, together with all the specialized knowledge assimilated during the years of study influences and changes their behavior towards their own oral health (12, 15, 20).

Therefore, the evaluation of the oral health of students at the Faculty of Dentistry is a topic of interest, especially since students, future doctors, are role models for patients, family, friends and, why not, for the whole society. For these reasons, the purpose of this study is to evaluate oral hygiene practices, and oral health behaviors in dental students.

MATERIAL AND METHOD

The study group is represented by 180 subjects, 110 students selected from the Faculty of Dentistry and 70 students from the College of Dental Technology. The selection of subjects was made according to two parameters (age and sex, 103 female subjects and 77 male subjects, aged between 22 and 25 years). Most of the subjects come from urban areas (58.3%) and only 41.66% of their total come from rural areas. The distribution of the study group in two groups, urban and rural, betrays on the one hand an increased awareness of urban subjects, and on the other hand, the increased number of subjects from rural areas advocates poor oral health.

The cross-sectional study conducted to determine the health behavior of the subjects studied was based on the questionnaire-based survey. In order to carry out the study, the questionnaire used by Al-Omiri and collaborators in their studies was used, a questionnaire that was approved by the Ethics Commission of the Rohikland Medical College, modified by

Cavaillon and Cuenca (3). This questionnaire contains 39 questions, in the first part related to demographic data (age, sex, environment of origin), and in the second part we find questions related to knowledge, attitudes and practices related to maintaining hygiene in the oral cavity. (4, 16).

In order to make a correlation between the state of oral health, the level of knowledge in the medical field and the way of application in practice, we used an adapted version of the Hiroshima questionnaire; this questionnaire was implemented to assess patients' perceptions of oral health in Japan by Dr. Kawamura Makota of the University of Hiroshima, Department of Preventive Dentistry (8). The questionnaire contains 20 statements that can have an affirmative or negative answer. To calculate the HU-DBI index, one point was given for each positive response and one point for each negative response. The ratio between affirmative and negative answers gives us an estimate of the attitude and behavior towards oral health. The maximum value of the HU-DBI score is 12, and the average value is between 2 and 9 (mean 5.8 SD = 1.5, Cronbach's alpha = 0.76). A higher HU-DBI index value shows a greater concern for oral health. The higher the HU-DBI index, the more motivating our behavior and the better our oral health (11, 13). The questionnaires were distributed to all 180 students during the internship hours, and the answers were 100%. Students were advised to answer questions without talking to each other or to the group assistant.

RESULTS AND DISCUSSION

To the question "How often do you brush your teeth?" 48.18% of the subjects from the Faculty of Dentistry brush their teeth 2 times / day, while 9.09% perform brushing more than 2 times a day. Regarding the students of the College of Dental Technique, 44.28% brush their teeth twice a day, and only 5.7% more than twice a day (fig. 1).

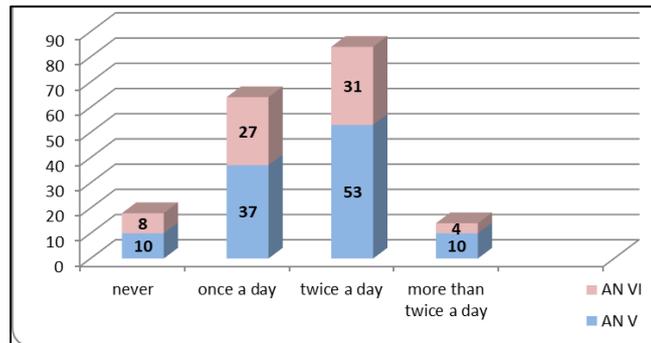


Fig. 1. Distribution of subjects according to the answer to the question: "How often do you brush your teeth?"

90.90% of dental students use only toothpaste to sanitize the oral cavity, while 84.54% of them also associate a mouthwash with fluoride as an adjunct to toothbrushing.

Regarding the future dental technicians, 88.57% of the subjects use only fluoride toothpaste, 82.85% of them also associating mouthwash (fig. 2).

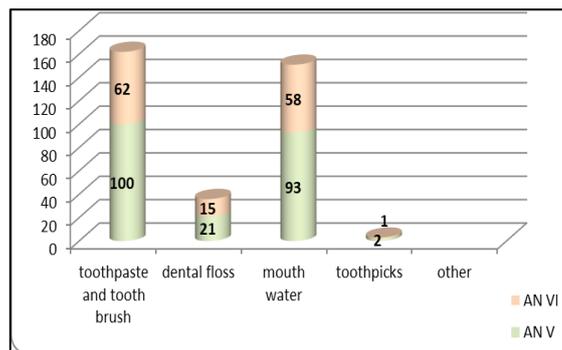


Fig. 2. Distribution of subjects according to the answer to the question: "What do you use for brushing your teeth?"

Most subjects, both from the Faculty of Dentistry and from the College of Dental Technique, perform dental brushing in the

morning and only half of them in the evening. A small percentage performs tooth brushing at noon (fig. 3).

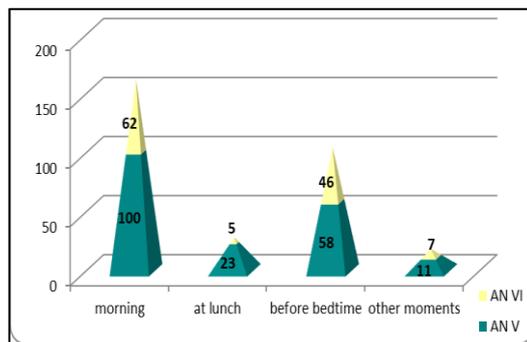


Fig. 3. Distribution of subjects according to the answer to the question: "When do you brush your teeth?"

A percentage of approximately 33.09% of future doctors devote less than 1 minute to toothbrushing, to about 19.09% of their total toothbrushing takes 1 minute and to 8.18% this technique is performed in

about 2 minutes. In 40% of the students from the College of Dental Technique, brushing takes less than 1 minute, and in 20% of their total this work is performed in more than 2 minutes (fig. 4).

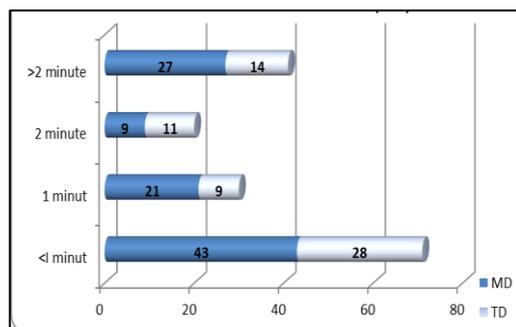


Fig. 4. Distribution of subjects according to the answer to the question: "How long do you brush your teeth?"

24.54% of dental students perform toothbrushing using vertical movements, while circular movements are used by 9.09% of subjects. In the case of college

students, 41.25% of them prefer vertical movements, while 16.25% prefer the combination of vertical and horizontal movements during brushing (fig. 5).

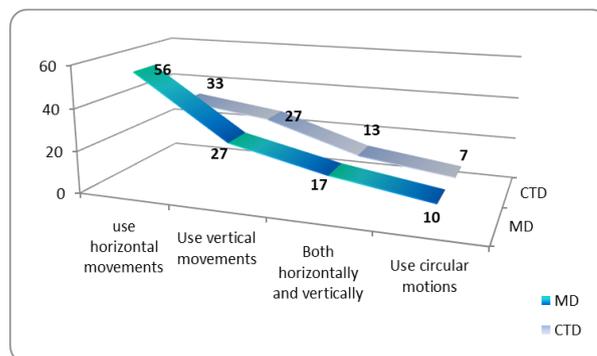


Fig. 5. Distribution of subjects according to the answer to the question: "How do you brush your teeth?"

For 82.72% of Dental students, gingival bleeding is a sign of gingival inflammation, while 20% of them consider gingival bleeding as a sign of gingival

recession. 30% of the students of the College of Dental Technique answered this question correctly, while 17.14% do not know what this clinical sign means (fig. 6).

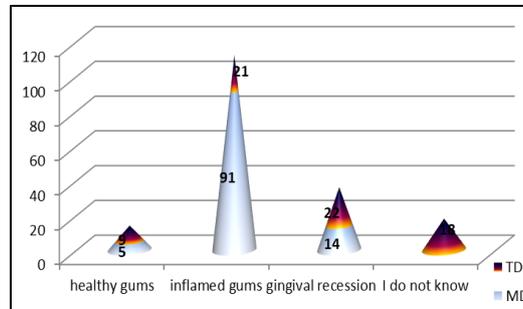


Fig. 6. Distribution of subjects according to the answer to the question: "What does bleeding gums mean?"

Bacterial plaque represents soft deposits on the tooth surface for 73.63% of the subjects from Dentistry and for 38.18% for those from Dental Technique. 10% of dentists and 12.85% of technicians consider

the bacterial plaque to be a pigmentation of the teeth. For 8.18% of the dental students and for 1.57% of the technical students the bacterial plaque represents the deposition of hard deposits on the tooth surface (fig. 7).

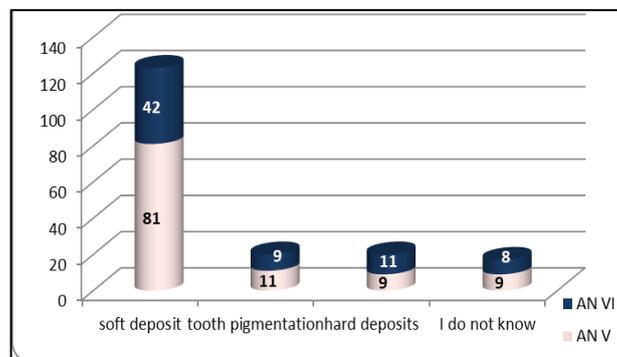


Fig. 7. Distribuția subiecților funcție de răspunsul la întrebarea: "Ce înseamnă placa bacteriană?"

25.71% of the subjects from the Dental Technique participating in the study go to the regular dentist, at 6-12 months,

unlike the subjects from the Faculty of Dentistry who occasionally go to the dentist (fig. 8).

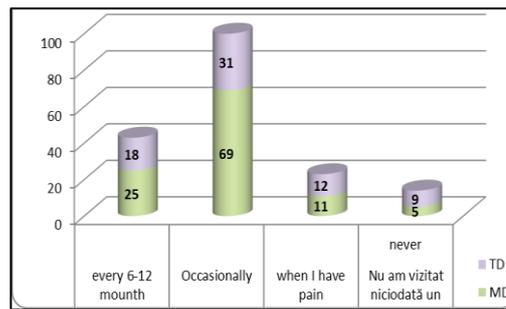


Fig. 8. Distribution of subjects according to the answer to the question: "How often do you visit the dentist?"

Dental treatments, respectively fillings, are present in all subjects studied, in a higher percentage in dental students compared to students in dental technique. (fig. 9).

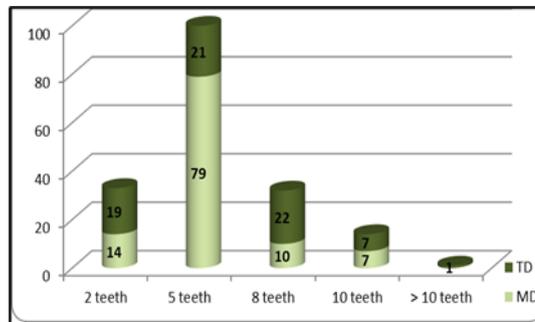


Fig. 9. Distribution of subjects according to the answer to the question: "How many filled teeth do you have?"

Obturations predominate in more than 5 dental units (mainly at the level of the lateral teeth) in a percentage of 71.81% of the dental students, and 31.42% of the subjects from the College of Dental Technique have more than 8 obturated teeth

The use of fluoride-based products increases the resistance of the enamel to

acid attack, according to 77.27% of the students at the Faculty of Dentistry, unlike the students of the College of Dental Technology, who consider, in proportion of 30%, that there is no connection between fluoride intake and enamel integrity (fig. 10).

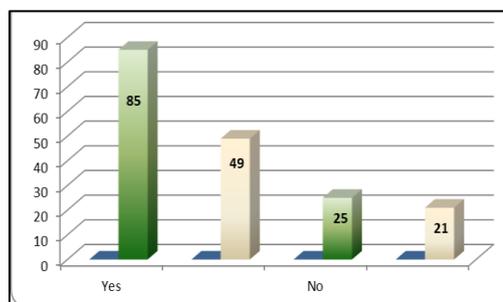


Fig. 10. Distribution of subjects according to the answer to the question: "Does using fluoride strengthen teeth?"

The majority of students (57.22% of the subjects participating in the study) consider that dentists focus on performing dental treatments and not on preventing the

occurrence of new dental lesions, although it is known that it is much easier to prevent than to treat a condition (fig. 11).

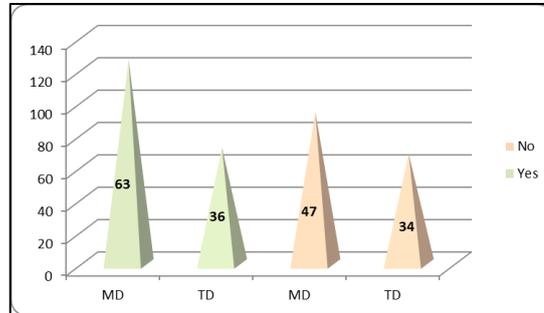


Fig. 11. Distribution of subjects according to the answer to the question: "Are regular visits to the dentist necessary?"

It can be seen that attending preventive dentistry or oral health courses is reflected in their attitude and behavior. In order to be able to determine the attitude and the sanogenic behavior of the participating students, we determined the HU-DBI index (table I).

The HU-DBI score for each question ranged from 3-11 for students in both dentistry and dental technology, with an average of 3,924 for students in the Faculty of Dentistry and 2,293 for students in the College. of Dental Technique. There is a low HU-DBI index for both groups of

students, which reflects an inadequate attitude and knowledge of students towards their own oral health.

In the present study, we included students from two cycles of university education, respectively, the Faculty of Dentistry and the College of Dental Technology, and the fairly large number of students allowed us to make some general interpretations of the results. The results obtained showed that most of the students participating in the study care about their oral health (as expected, dental students predominate).

QUESTION	YES		NO		HU-DBI SCORE	
	MD	TD	MD	TD	MD	TD
1 I'm not too interested in visiting the dentist	51	41	59	29	0,84	1,41
2 My gums tend to bleed when I brush my teeth	88	31	22	39	4	0,79
3 I'm worried about the color of my teeth	89	52	21	18	4,23	2,88
4 Some white spots appeared on my teeth	56	38	54	32	1,03	1,18
5 I use a small toothbrush	39	49	71	21	0,54	2,33
6 I don't want artificial teeth when I'm old	110	70	0	0	0	0
7 I'm worried about the color of my gums	56	38	54	32	1,03	1,18

8	I think my teeth don't look great, despite the fact that I brush every day	87	37	23	33	3,78	1,12
9	I brush my teeth carefully	94	21	16	49	5,87	0,42
10	I have never been shown by a professional how to brush my teeth	98	62	12	8	8,16	7,75
11	I think I can brush my teeth well without using toothpaste	59	41	54	29	1,09	1,41
12	I often check my teeth in the mirror after brushing	102	46	8	24	12,75	1,91
13	I'm worried about the unpleasant smell in my mouth	87	52	23	18	3,78	2,88
14	It is impossible to prevent gingival bleeding only by brushing	11	37	99	33	0,11	1,12
15	I don't go to the dentist until I have a toothache	78	62	32	8	2,43	7,75
16	I used plaque detectors to see how clean my teeth are	101	26	9	44	11,22	0,59
17	I use a hard toothbrush	83	46	27	24	3,07	1,91
18	I don't feel like I brushed my teeth well until you brush me with strong movements	81	48	29	22	2,79	2,18
19	Sometimes I think I'm wasting too much time brushing my teeth	39	51	71	19	0,54	2,68
20	My dentist told me I was brushing my teeth well	101	57	9	13	11,22	4,38
HU-DBI SCORE						2,11	1,82

The low rate of visits to the dentist can be explained by the fact that, in the government's dental health policy, the emphasis is on restorative treatment to the detriment of preventive treatment. These results are in line with existing data in the literature (1, 5, 18).

Students generally go to the office when there is a toothache and less often when there is bleeding gums after brushing. It was expected that all students participating in the study would know a correct brushing technique, especially since they will train their future patients. Moreover, almost half of the students stated that they had not been shown a brushing technique.

The attention he pays to brushing teeth has also been reported in the fact that some students use revealing bacterial plaque solutions.

For the most part, dental students normally considered a dental check-up at 6 months or annually, while most dental students considered that the visit to the dental office depends on the pathology. These results are in line with the results in the literature (9, 10, 19).

All dental students felt that all the information gained during their college years helped them make decisions about their own dental treatment.

The fact that for the toothbrushing the students in the study use for brushing paste and brush with hard brushes is in accordance the results of other existing studies in the literature (9, 19).

Correlations can be established between the answers obtained when completing the Hiroshima questionnaire and those obtained when completing the questionnaire introduced by Al-Omiri and

collaborators. Thus, the increased number of affirmative answers to the question "I do not go to the dentist until I have a toothache" can be correlated with the large number of students brushing their teeth up to 2 times a day, especially in the morning, brushing teeth lasting up to 1 minute. Also, most subjects go to an occasional dental office or, at most, if they have a toothache.

The answers to the question "I have never been shown by a professional how to brush my teeth" can be correlated with the number of subjects who answered negatively when asked if the dentist pays much attention to the patient's needs to know and understand medical pathology who has it.

Subjects who answered in the affirmative to "My gums tend to bleed when I brush my teeth" explain the answers to the questions about gingival inflammation.

It is quite difficult to explain these results as they are considered only an attempt to explain the unexpectedly poor oral hygiene among dental students.

Of the twenty questions from HU-DBI, compared to dental students, dental students were more in agreement with questions such as "I am bothered by the color of my gums" (# 7), "I think I can clean my teeth well without using toothpaste" (# 11), "I used a developer to see how clean my teeth are" (# 16) and "My dentist told me I was brushing my teeth well" (# 16). 20).

The answers to question no. 7 demonstrates a better awareness of the need to prevent carious lesions, but also periodontal disease in dental students. It is assumed that the large number of affirmative answers to question # 11 among dental students showed that they had developed a better understanding of the fact that mechanical removal of dental plaque does not depend solely on the use of toothpaste. This makes it possible to establish correlations with the answers to the questions related to the prevention of

periodontal diseases in the AL-Omiri questionnaire.

The results of the study are in contradiction with the existing results in the literature. Thus, comparative studies conducted among students in Turkey and Saudi Arabia show a HU-DBI index in Turkish students in the first year of education of 5.57 and in Arab students of 4.56 (11, 13, 16).

Viewed from this point of view, the characterization of oral health among students at the Faculty of Dentistry and the College of Dental Technology is quite difficult to achieve as there are no clear and conclusive statistical data so far (5, 6, 17). In the opinion of the leading forums, such an approach can be made either on the basis of personal experiences or on the basis of observations or verifications of data available for an appointment at dental offices in Romania. The data related to the oral health of the Romanian population are missing, therefore a characterization of this aspect being impossible to achieve.

Informing patients about correct oral habits and raising their awareness of how to prevent oral diseases are important responsibilities of oral health providers.

As dental students are the future professionals in the field of health, they must adopt and adopt correct oral health attitudes and behaviors during the school years in order to guide their patients properly.

CONCLUSION

The level of academic training influences the frequency of visits to the dental office. The level of knowledge of students differs between the two groups, a fact attributed to the different input of information received during the years of study at the Faculty of Dentistry and the College of Dental Technology. Students have a fairly high level of knowledge about oral hygiene, methods and techniques for maintaining oral health, although there are differences depending on the faculty. Even if there is an increase in interest in the

educational factor, visits to the dentist are not a major priority at the moment. The attitude of future dentists towards their oral and periodontal health is an important determinant of their general health. The

health education campaign determines the awareness of the importance of oro-dental hygiene, of the food factor, of the periodical control at the dentist.

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