

# Comparison of oral health related behaviors in a group of non-medical, medical and dental students

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## ABSTRACT

Oral health is an important component of public health that affects the quality of life of people. Because people use students as a model of oral health behaviors, students' behavior can have a significant impact on people's knowledge, attitude and health behavior. Therefore, this study compared oral health-related behaviors in a group of non-medical, medical, and dental students. Data collection in this study was used with a questionnaire corresponding to the standard questionnaire to assess the status of oral health of the World Health Organization and similar previous studies. Between October and December 2019, 284 students were surveyed for knowledge, attitude and practice related to oral health. 120 questionnaires in 6 faculties of Shahid Beheshti University and Shahid Beheshti University of Medical Sciences, 100 questionnaires in 5 selected faculties of Shahid Beheshti University of Medical Sciences and 64 questionnaires were randomly completed by dental school students. Among dental, medical and non-medical students, 46%, 71% and 65% brushed once and less than once a day and 54%, 29%, 29% brushed more than once a day, respectively; 14%, 37% and 53% flossed less than once a day and 86%, 63% and 47% flossed at least once a day; 66%, 86% and 81% referred to the dentist due to non-check-ups and 34%, 14% and 19% periodically; 76%, 76% and 83% at least once a day and 24%, 24% and 17% less than once a day Consumed sugars; 30%, 41% and 36% had seen a dentist less than once in the last 12 months and 70%, 59% and 64% had seen a dentist more than once; 58%, 85% and 84% smoked and 9%, 13% and 14% did not smoke; 80%, 76% and 77% did not smoke hookah and 20%, 24% and 23% smoked hookah. 97%, 95% and 92% did not smoke pipe and 3%, 5% and 8% smoked pipe. Oral health-related behaviors in non-medical students were significantly lower and different from those in medical and dental students, so health policies should provide a good opportunity for all students, especially non-medical students, to achieve a high level of oral health performance.

**Keywords:** Oral health, dental students, non-medical students, medical students

## Introduction

Oral health is considered as a key component in general health. Oral health has been proven to affect quality of life. Oral health may affect one's appearance, social functioning, and daily physical and mental activities<sup>[1]</sup>. Iran's demographic structure is young and a large part of it includes young and students<sup>[2]</sup>. It is

expected that students, especially medical students, to have a higher level of knowledge on oral health due to being exposed to educational settings compared to public people<sup>[3]</sup>. Their proper health behavior is being monitored in community and it is expected that their family members and other groups of community to view students as a correct health behavior model and source of health information. Thus, their knowledge and correct attitude in the area of oral health can indirectly have a positive impact on community health, because students in the future will be the main promoters of health in the community<sup>[4]</sup>. This issue reflects the importance of paying attention to raise students and youth people knowledge of community health policies. Several studies<sup>[5-8]</sup> have evaluated oral health knowledge, attitude and practice of oral health among health care providers. However, most of these studies have evaluated

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the attitude and practice of oral health without dividing it into separate areas.

## Methods

The research data were collected through questionnaire. To design its questions, standard questionnaire of World Health Organization oral health status assessment <sup>[9]</sup> and similar previous studies were used <sup>[10]</sup>.

- 1- Demographic questions: Demographic questions included age, gender, level of education, parental level of education, and monthly income of students' families.
- 2- Health-related behaviors, including frequency of brushing, flossing, consumption of sugary foods, time and reason of referring to dentist, and smoking (including cigarettes, hookah and pipe) were assessed with 9 questions. The sum of scores of these 9 questions was considered as mean score of students' practice.

After confirming the desired questionnaire, the researcher referred to schools of Shahid Beheshti University and Shahid Beheshti University of Medical Sciences that had been selected randomly. Then, the researcher asked the students at present at campus to participate in the study using a convenience sampling method. Then, information about the questionnaire and the type of study was provided for them. Then, they were asked to

complete the questionnaire. The researcher collected the questionnaires after completing them by the students. A total of 120 questionnaires were distributed among the 6 schools of Shahid Beheshti University and 20 questionnaires on average were completed in each school. Then, the researcher referred to 5 selected schools of Shahid Beheshti University of Medical Sciences and 100 questionnaires were completed and collected in a same process. Also, 64 questionnaires were completed by the students of the dentistry school.

## Results

In the present study, 284 students were examined in terms of oral health-related knowledge, attitude and practice. Out of all subjects, 58% were in the medical group and 42% in the non-medical group. Also, 39% of medical students were dentistry students.

The mean and standard deviation of age in all students was  $21.9 \pm 2.9$  years. The mean age in the group of non-medical students and the group of medical students was  $21.9 \pm 3.1$  years and  $21.9 \pm 2.8$  years, respectively. The mean age was not significantly different between the two groups ( $P = 0.94$ ) (Table 1). Out of all students, 41% were male and 59% were female. The number of females was more than number of males, but there was no significant difference between the two groups in terms of gender distribution ( $P = 0.56$ ) (Table 1).

Table 1- Distribution of participants based on oral health-related behaviors

		Dentistry n (%)	Medical n (%)	Non-medical n (%)	All students n (%)	P-value
Brushing	Once and less than once a day	(46) 29	(71) 71	(71) 85	(65) 185	0.04
	More than once a day	(54) 34	(29) 29	(29) 35	(35) 98	
Flossing (at least once a day)	No	(14) 9	(37) 37	(53) 64	(39) 110	0.001 >
	Yes	(86) 55	(63) 62	(47) 56	(61) 173	
Reason for referring to dentist	Not checkup	(66) 42	(86) 84	(81) 95	(78) 221	0.03
	Periodic checkup	(34) 22	(14) 14	(19) 23	(22) 59	
Consumption of sugary foods (at least once a day)	yes	(76) 49	(76) 76	(83) 100	(79) 225	0.10
	no	(24) 15	(24) 24	(17) 20	(21) 59	
Referring to dentist in the last 12 months	$1 >$	(30) 19	(41) 41	(36) 43	(36) 103	0.08
	$1 \leq$	(70) 44	(59) 59	(64) 77	(64) 180	
Smoking cigarettes	no	(91) 58	(87) 85	(71) 84	(81) 227	0.02
	yes	(9) 6	(13) 13	(14) 35	(19) 54	
Hookah	no	(80) 51	(76) 75	(77) 72	(70) 198	0.02
	yes	(20) 13	(24) 24	(23) 46	(30) 83	
pipe	no	(97) 62	(95) 93	(92) 109	(94) 264	0.64
	yes	(3) 2	(5) 5	(8) 10	(6) 17	

## Discussion and Conclusion:

The role of oral health promotion behaviors in improving the quality of life of people has been well proven<sup>[1,11]</sup>. Many people are prone to disability and reduced quality of life due to non-compliance with oral health requirements. Hence, a major part of health policy has recently been allocated to promotion of oral health<sup>[12]</sup> and students as individuals who are exposed to a variety of trainings can play a vital role in training and promoting of oral health behaviors of people in the community<sup>[13]</sup>. The strength of present study is investigating oral health-related behaviors separately among a population of non-medical, medical and dentistry students. It seems that medical and dentistry students through their courses are more familiar with oral health-related behaviors than non-medical students and this can be an effective role of this group of students in implementing policy. To show the promotion of oral health in the community, therefore, this study compared oral health-related behaviors in a group of non-medical, medical and dentistry students. Shaban et al. (2007) evaluated the relationship between perception of concept of health and health promotion behaviors and compared it in two groups of fourth-year students of Tehran University of Medical Sciences and Tehran University and concluded that adherence to health behaviors in medical students was higher compared to non-medical students so that 57% of medical students and 9.54% of non-medical students had good health promotion behaviors, which is consistent with the results of this study<sup>[14]</sup>. Also, Ghanbari et al compared the relationship between level of dental information and the level of oral health in dentistry and non-dentistry students and concluded that dentistry students paid more attention to the use of aids to improve oral health. Kumar et al. (2017) evaluated the knowledge, attitude and practice of oral health of dentistry and medical students in East India and their results were in line with the results of present study<sup>[15]</sup>. Oral health-related behaviors were significantly different among non-medical students compared to medical and dentistry students. Thus, health policies to improve quality of life of people in the community should indirectly provide appropriate educational conditions and opportunities so that all students, especially non-medical students, to achieve a proper level of practice on oral health.

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