

Knowledge, Attitude and Practice toward Oral Health: The Case of Abadan Nursing School Students in 2011

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Abstract

Introduction: Oral health as an essential indicator of public health significantly affects public health. Adequate Knowledge, attitude and practice can effectively prevent many oral diseases. Therefore, this Study examines students' knowledge, attitude and practice toward oral health.

Methods and Materials: The study used a descriptive – analytical method and immediate sample available for gathering data. This study included the views of 131 students of Abadan Nursing College. A questionnaire was used which integrated both demographic and oral health questions. SPSS analyses included variance, Pearson correlation and t-test. .

Results: The results showed that the mean of students' attitude score was 11.3 ± 2.4 , which suggested a moderate attitude toward oral health. The correlation between students' attitudes and gender (P: 0.01), students' attitudes and underlying disease (P: 0.02), students' attitudes and economic status (P: 0.007) were all significant. The mean of students' knowledge score was 8.17 ± 3.3 as 36.6% of participants had enough knowledge about oral health. However, there was no significant association between oral health and demographic information. The results also showed that most participants had adequate practices for oral health.

Conclusions: Since attitudes and knowledge of the participants were not satisfactory, but rather moderate, it could be said that oral health requires more training to compensate for the vacancies.

Keywords: Knowledge, attitude, practice, oral health, students.

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Introduction

knowledge and attitude towards oral hygiene. Thus, it is necessary to attempt to increase the level of knowledge and attitude of people about oral disease prevention to achieve the goals of prevention planning. Prevention is the most important way to reduce dental caries and the first step of prevention is to improve health and prevention culture among people. As these issues consist of 4 steps such as knowledge, beliefs, practices and habits, the important principle is to consider the Community Health condition and the level of their knowledge for proper planning in the field of health and prevention (1). Therefore, it is necessary to know the individuals we deal with, the level of their knowledge and at last the factors affect the knowledge, attitude and behaviors before any Health training plan and above all any Prevention action planning. The important role of nurses is to provide training in various health areas. Thus the knowledge of nurses providing first-line health services is an effective factor which affects the quality of oral hygiene services. Then it is necessary to assess the knowledge, attitude and practices of nursing students continuously, set up workshops if necessary and re-educate to increase the knowledge and the attitude of these individuals that have an important role in better services. Regarding the importance of this issue, the researchers consider to conduct a research titled "Assessment of knowledge, attitude and practices of Nursing students of Oral hygiene at Abadan Nursing College in 1390" to assess the knowledge of these individuals in this context and step forward to improve the level of community health.

Methods and Materials

The present study was a cross-sectional that the research community consisted of male and female students of Abadan Nursing College at BA level that had passed at least one semester. Availability

Man today is the most susceptible creature to dental caries for his life style and food habits. Totally 99% of the people suffered from it during their life (1). As the communications and different conditions among the people of the society increased, the observance of dental hygiene and beauty is needed more than before (2). Despite much progress on fighting disease around the world, oral diseases specially dental caries are still the most common worldwide diseases such as in our country(3). Today oral disease is one of the main challenges in modern medicine because of the changes that occur in the life style of the people, industrialization of the societies, change of food habits and extreme use of sweet foods as the main cause of dental caries. In Total modern science considers dental diseases as behavioral disorders and etiology of dental caries and periodontal diseases is that the habits and life style of the people affect the progress of these diseases intensively (2). According to the investigations of family and cultural beliefs of oral hygiene and feeding methods among different social-economic groups, Adair says the attitudes of individuals significantly affect the establishment of habits favorable to oral health and the ethic and cultural diversity cause the attitudes of individuals change towards oral hygiene(4). The existence of pathogens such as some bacteria, individual dietary, work and life environment, social and economic condition and inherited dental abnormalities are decay factors that the progression of them in the members of a family or a region need to be assessed(5). Dental caries could be controlled and prevented by fluoride treatment, observance of personal hygiene (proper teeth brushing, use of special dental floss, toothpaste and mouthwashes containing fluoride), avoiding extreme use of sweet foods and eating food repeatedly (6). Health behaviors of the people in each society are affected by the level of their

variance (ANOVA) . And the significant level of all the tests were considered 0/05.

Results

The mean age of the individuals sampled was $21/3 \pm 2/4$ years, 58/8% of them were female , the economic condition of most of them (52/7%) was moderate and 89/4% of the individuals had no history of underlying diseases. The findings showed that the mean attitude score of individuals was $11/3 \pm 2/4$ and the attitude of 77/9% of individuals (52/7%) towards oral hygiene was moderate. The results showed that the mean attitude score of male students was higher than female students that it is a significant difference (p: 0.01). In addition, the attitude of individuals with no history of underlying diseases was better (p: 0.02). According to the ANOVA test, there is no significant relationship between the attitude and economic condition of the individuals (p: 0.007) (Figure 1). But the age and educational semester were not significantly related to the attitude of the individuals. The mean attitude score of the students sampled was $8/17 \pm 3/3$, the knowledge of 43/5% of individuals was moderate and 36/6% of them had proper knowledge about oral hygiene. The findings showed that the knowledge about oral hygiene is not significantly related to age (p:0.2, r:- 0.1) , semester (p:0.6, r:-0.03) , the history of the disease (p:0.3) , gender (p:0.55) and economic condition of individuals (p:0.29)(Figure 1).

42% of the individuals brush their teeth two times a day and only 6% of them say they have never brushed their teeth. In addition, 42% of the individuals say they often use dental floss and only 6/1% of them use dental floss daily. Most of the individuals sampled (50/4%) say they go to the dentist's office for treatment (dental filling and etc.).

sampling was used and the sample size consisted of 131 individuals. Questionnaires were distributed to collect data. The researcher went to the college; after the questionnaires distributed among the students and the purpose of the study was explained to them, they were given enough time to answer the questions. Then he collected the filled questionnaires. The instruments used to collect data in this study consisted of two parts. The first part was demographic characteristics which involved the information about age, gender, family economic condition and educational semester and the second part was the Oral hygiene questionnaire. This questionnaire was developed by Hadavand Khani in 1389 which consisted of 19 questions about the attitude , 8 questions about the knowledge and 3 questions about the practices. Each question had a correct answer in the attitude domain and 1 score was given to each correct answer. Thus the attitude score of each individual ranged from 0 to 19. The scoring of the knowledge domain was in a way that the 3 questions which their answers were "Above all" had 3 scores and the other questions had 1 score. Then 14 scores were assigned for the knowledge. The practices of individuals were assessed through Frequency percentage of their answers to practice questions. Reliability and validity of the questionnaire was approved by Hadavand Khani. Moreover, the researchers of this study estimated Cronbach's alpha coefficient of the questionnaire 83% to reassess the validity of the questionnaire. The data was analyzed by SPSS 18.0 statistical software, descriptive and inferential statics tests such as frequency distribution table, measures of central tendency, Pearson correlation coefficient, T-test and one-way analysis of

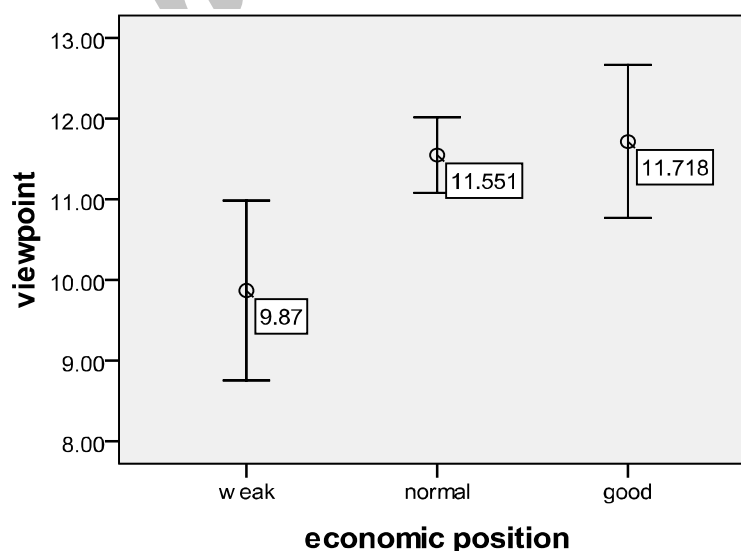
Table 1: Correlation between demographic data and student knowledge and attitude toward oral and dental health

component Variables		Knowledge					Attitude				
		frequency	mean	Sd	p	r	frequency	mean	Sd	p	r
age		131	-	-	0.22	- 0.1	131	-	-	0.25	- 0.1
Sex	boy	54	8.35	3.4	0.55	-	54	11.81	1.9	*0.01	-
	girl	77	8	3.2			77	10.9	2.7		
Contextual disease	yes	14	7.5	2.8	0.3	-	14	9.9	3.2	*0.02	-
	no	117	8.2	3.3			117	11.47	2.3		

:*significant level of all the tests considered 0/05 .

Table 2: Frequency distribution and percentage of student action to oral and dental health questions

		frequency	percent
How often do you brush your teeth?	Once a day	42	31.1
	twice a day	55	42
	more than twice a day	17	13
	Once or twice a week	9	6.9
	Any time	8	6
How often do you use dental floss?	Once a day	8	6.1
	Every other day	16	12.2
	Once or twice a week	4	3.1
	Sometimes	55	42
	Never	48	36.6
What was the reason of your last dental check up?	Check up	11	8.4
	treatment	66	50.4
	Don't check up	54	41.2

**Figure 1: correlation between economic situation variable and attitude component toward oral and dental health**

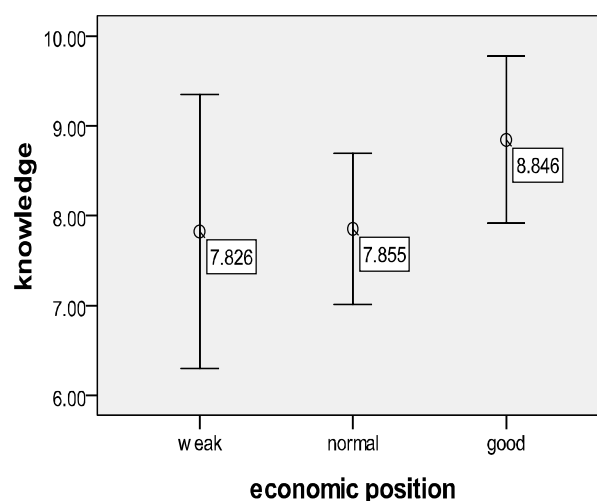


Figure 2: correlation between economic situation variable and knowledge component toward oral and dental health

Discussion

According to the results of this study, the mean attitude score of nursing students was at moderate level and the majority of the present individuals had the moderate attitudes towards oral hygiene. In consistent with the achieved results, Taghavi, Meybodi and Fallahi Nejad say the attitudes of most of their study samples towards oral hygiene were at moderate level (3, 8, and 10). Hadavand Khani used the same questionnaire in his study and concluded that the attitude of 43.3% individuals was at moderate level. But the attitudes of most of the sampled individuals towards oral hygiene were low (9). In addition, Khosravi and Haji Kazemi say the sampled individuals have low and negative attitude toward oral hygiene (11, 12). While Taghizadeh Ganji, Khademi, Shayegh say the sampled individuals have positive and favorable attitudes toward oral hygiene (13, 14, 15). The moderate attitudes of the students towards oral hygiene may be because of primary weaknesses in training of these individuals. Then it is recommended to set up training classes to promote the attitudes of the individuals by experienced teachers. Because health information of these individuals who are at the forefront of community health could help to create a

healthy community. The results of our study shows that, the attitudes of males are significantly more favorable than females. But there is no significant difference (12). Although Meybodi says the attitudes of females are more positive (8). While Hadavand Khani, Pourhashemi, Khademi and Taghizadeh Ganji say there is no significant relationship between gender and attitude towards oral hygiene (9, 13, 15, and 16). As there are different results, it requires to conduct more studies to approve the relationship that exists between gender and attitude. This study shows that the attitudes of the individuals with no underlying oral disease are more positive. But Hadavand Khani says there is no significant relationship between these two variables (9). Our study shows that the attitudes of the students towards oral hygiene declines as their age and education semester increase. Pourhashemi and Shayegh also say the attitudes of individual's declines as the age and education semester increase but there is no significant difference in consistent with this study (14, 16). Besides these results, Hadavand Khani says there is no significant relationship between age and attitude towards oral hygiene (9). But Meybodi and Khosravi say there are

inverse and significant relationships between these two variables as the attitudes of younger individuals are more positive and more favorable (8,12). Probably, as the age increases, because they face unfavorable conditions and can't achieve the expected conclusion which result from wrong health behaviors such as tooth-brushing techniques the attitudes of individuals orient towards moderate levels. Moreover, it seems that probably the students at lower semester have more time to study due to the less clinical and curriculum concerns. Then these students have more positive attitudes. This study shows there are direct and significant relationships between the attitude of individuals towards oral hygiene and their economic condition, so that the attitude of the individuals with better economic condition is more favorable than others, while Hadavand Khani and Ajami say there is no significant relationship between these two variables (9,17). In this regard, the individuals who live in families with higher economic welfare have more favorable attitude towards oral hygiene. But according to Maslow's pyramid of needs, it seems natural that the individuals with more favorable economic condition pay attention to other issues such as health care as they could provide their basic needs of life. Otherwise it is required to conduct more studies to approve this issue. As the knowledge of the students about oral hygiene have been investigated, the results show most of the individuals' knowledge is moderate to high. Actually, most of the sampled individuals have moderate knowledge about dental caries factors, gum disease symptom and time to change toothbrush. In this regard, Taghavi, Javadi Nejad and Naderifar also say the knowledge of the sampled participants is moderate to high that it is entirely similar to the results of the present study (10,18,19). In addition, the results of the studies conducted by Hadavand Khani, Meybodi, Dastjerdi and Fallahi Nejad show the knowledge of the participants

about oral hygiene is moderate which they are approximately similar to the present study (3,8,9,20). While Khosravi and Shayegh say the knowledge of the participants about oral hygiene is low (12,14). Moreover, in the studies conducted by Zafarmand, Ganji and Taghavi the knowledge of the sampled participants is higher than the participants' knowledge of the present study (13,21,22). According to the present results that show the knowledge of students about oral hygiene is moderate, it could be said the level of the knowledge is not favorable in Nursing community and they need to be trained by experienced teachers to improve their knowledge about oral hygiene. The relationship between demographic characteristics of participants and their knowledge about oral hygiene has been investigated and the results show that although the knowledge of the students declines as the age increases, it is not a significant relationship. Mazloomi Mahmoud Abad and Hadavand Khani also say there is no significant relationship between age and the knowledge of oral hygiene that is similar to the results of this study (6, 9). In this regard, Taghavi, Meybodi, Khosravi and Pourhashemi say the knowledge of the sampled individuals about oral hygiene declines as the age increases (8, 12, 16, and 22). In addition, Naderifar says the knowledge of the individual's increases as the age increases that is in contrast with the results of our study (18). It could be said that the knowledge of individuals about oral hygiene declines as the age increases because they have not studied health courses at the first year of the university and these courses have not re-educated or even they have not studied these courses themselves. Then as a result the knowledge of the individuals declines gradually. The results show the knowledge of males about oral hygiene is a little higher than females but it is not a significant difference. Khosravi and Dastjerdi say the knowledge of males is

higher than females but it is not a significant difference so that the results are entirely in consistent with the results of the present study (12,20). In addition, Khademi and Javadi Nejad say there is no significant relationship between gender and the knowledge of the individuals about oral hygiene (15, 19). In this regard, Hadavand Khani and Shayegh say the knowledge of males is significantly higher than females, so that the results are approximately similar to the results of our study (9,14). While Taghavi, Meybodi and Taghizadeh Ganji say the knowledge of females about oral hygiene is significantly higher than males. The findings of our study show the knowledge of the individuals with more favorable economic condition is higher than those with lower economic condition. But it is not a significant difference. In consistent with this study, Ajami says the knowledge is higher as the economic condition improves but there is no significant relationship between these two variables (17). In addition, Hadavand Khani and Naderifar say there is a significant relationship between these two variables so that the knowledge of the individuals who have favorable economic condition increases about oral hygiene (9,18). It could be said the individuals who have better economic condition can use medical and information resources more than others and pay more attention to their oral hygiene. The results of this study indicate the sampled individuals have proper oral hygiene practices. The majority of the students brush their teeth one or two times a day and more than a half of them use dental floss. Then the results represent the proper oral hygiene practices of the students. In this regard, Taghavi and Mazloomi Mahmoud Abad in their studies concludes that more than the half of individuals brush their teeth daily and often use dental floss that it also shows the proper oral hygiene practices of individuals in consistent with the present study (6,10). In addition Kheirollahi and Taghizadeh Ganji say the

practices of the individuals are proper (13, 23). Hadavand Khani, Fallahi Nejad and Haji Kazemi say the majority of the individuals have moderate oral hygiene practices (3,9,11). While the samples assessed in the studies of Khosravi and Meybodi don't have proper practices and the level of their practices about this issue is low (8, 12). According to the proper oral hygiene practices of the individuals, it could be said the students know how to use toothbrush and dental floss correctly and practice them. Moreover, it is said these students know the importance of using dental floss and use it. Most of the sampled individuals say they have not gone to the dentist as long as there is no problem for their teeth and gum. Actually, the majority of the students go to the dentist for treatment. In consistent with this study Khosravi and Hadavand Khani say most of the sampled individuals go to the dentist for treatment (9, 12). While Peterson in the study conducted in Lithuania concludes that the majority of individuals go to the dentist for check-up (24). It could be said it is not common in our culture to go to the dentist for check-up and many people go to the dentist just when they have any oral problems.

Conclusions

According to the achieved results of this study, it could be concluded that the levels of knowledge and attitude of the individuals are all at moderate level. But they have acceptable practices on observance of oral hygiene. Thus, according to the moderate level of the knowledge and attitudes of these individuals of oral hygiene, it is recommended to promote their knowledge and attitudes by setting up re-education classes of oral hygiene and providing brochures and books as information resources. In addition, it is necessary to explain oral check-up benefits to these individuals in order to prevent oral hygiene problems.

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