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Evaluation of Oral hygiene awareness, attitude and practice of patients with the fixed prosthesis in yazd dental school in 2017-2018

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Abstract

Introduction: Fixed partial denture is permanently attached to the remaining teeth or implants. The most common complication of prosthetic treatment is periodontal diseases like gingivitis. Maintaining oral hygiene can prevent gum inflammation. The aim of this study was to evaluate the oral hygiene awareness, attitude and practice among fixed denture wearers attending Yazd Dental School in 2017-2018.

Materials and Methods: In this descriptive crosssectional study, 210 patients wearing fixed partial prosthesis referred to Shahid Sadoughi Dental School were randomly selected. A questionnaire including awareness, attitude and practice questions among patients with fixed prosthesis referred to Shahid Sadoughi Dental School was distributed and collected after completion. Data were analyzed by SPSS23 software using t-test, ANOVA and Pearson correlation.

Results: The mean score of patients' awareness about oral hygiene was 4.10 ± 1.52 out of 7, for attitude was 12.21 ± 1.45 out of 14 and for practice was 1.81 ± 1.06 out of 4. There was no significant difference between the mean score of awareness, attitude and practice of patients in male and female patients and also in different types of prosthesis (P-value <0.05). Awareness and attitude were higher in older people and in those who had used the prosthesis for a longer period. Awareness and attitude also

had a direct and significant relationship with patients' education (P-value <0.05). Patients' practice was not significantly correlated with any of the indices studied.

Conclusion: Patients wearing fixed prostheses in Yazd have moderate awareness, good attitude and yet poor practice regarding oral hygiene. Education has a positive effect on awareness and attitude. Dentists can help the patients to maintain their oral health by educating them.

Keywords: awareness, attitude, practice, fixed denture, oral hygiene

Introduction

Oral hygiene is a necessity and part of public health and significantly affects people's quality of life. The impact of oral health on the quality of life is very important because it can affect social growth and self-esteem and daily activities. Therefore, in order to improve the health of the society, it is necessary to plan for the health of the people and to continue the health care programs (1, 2).

Actions and behaviors related to oral health of people in each society are affected by the level of their knowledge, awareness and performance towards oral health (3, 4). Awareness is the amount of information that a person obtains through education on various topics and is one of the important factors in health education (5-7).

Replacing missing teeth has always been a major problem for patients visiting medical centers. As people pay more and more attention to the beauty of their teeth and the

replacement of lost teeth, the number of people using dental prostheses has increased. After tooth decay, one of the most common methods for repairing or replacing damaged teeth is the use of complete veneers or parasites. Fixed Persil Prosthesis (FPD) is a prosthesis that permanently attaches to remaining teeth or implants and replaces missing teeth or teeth (8). The negative effects of dental restorations on the gums have been the subject of much clinical study. The most common complication of prosthetic therapy is periodontal disease such as gingivitis (9). Pathological changes in periodontal tissue were first seen when margin prostheses were placed under the gums (10). By maintaining good oral hygiene, gingivitis can be prevented. Patient motivation and ability to maintain oral hygiene are of great importance for improving the prognosis of long-term prosthetic appendages and preventing subsequent complications (11). Lack of oral hygiene can lead to biofilm, which causes soft tissue inflammation. It is well known that dental plaque is the main cause of inflammatory reactions. Maintaining good oral hygiene significantly reduces dental plaque on dentures and prosthetic appendages (12, 13).

In patients with fixed dental prostheses, self-cleaning processes are limited and the accumulation of microbial plaque is facilitated, thus increasing the importance of maintaining oral hygiene. Crown margins and bridge connectors are the area's most prone to plaque buildup. Therefore, patients who do not maintain good oral hygiene and do not clean their prosthetic appendages are more likely to have periodontal problems (17-17). The most common causes of poor oral hygiene are lack of patient motivation, disability, and complicated prostheses. If the patient is not motivated enough, the therapist should be encouraged and trained to increase oral hygiene. Numerous studies have confirmed that explaining the importance of oral hygiene to patients leads to improved oral hygiene. In the case of disabled and physically disabled patients, care should be taken. Also, if the patient has complex prostheses, the use of additional techniques is required (12, 18, 19). Previous studies have poorly assessed oral hygiene in patients with dental prostheses (20). Other studies confirm that regular and thorough cleaning of teeth in patients with dental prostheses helps maintain and maintain satisfactory oral hygiene (21). The failure of prosthetic therapy, in addition to being due to improper treatment plan and technical errors in shaving, is greatly affected by proper oral hygiene. To maintain the remaining teeth and ensure the longevity of dental prostheses, maintaining good oral hygiene is very important in these patients.

In order to be able to properly plan the level and amount of health information provided to individuals, their current situation must first be examined. Knowing issues such as education, occupation, age, awareness, attitude and current health behaviors can identify weaknesses so that more emphasis can be placed on them in addition to improving insight and health habits. In general, due to the fact that similar studies have not been found in Iran based on the research conducted, we have designed a questionnaire that has more relevant health questions than people who have parasitic prostheses previous similar had than questionnaires conducted abroad. They use dental fixation, so that we can check the level of awareness, attitude and performance of patients with fixed parcel prosthesis about oral hygiene in Iran.

Therefore, this study was conducted with the aim of determining the level of awareness, attitude and performance of patients with fixed prostheses to Yazd Dental School (Iran) about oral health in 2017-2018.

Materials and methods

The present study is descriptive and cross-sectional and the study population included all patients with fixed

prosthesis referred to Shaheed Sadoughi School of Dentistry in Yazd (Iran) in 2017-2018. In the present study, patients with all-metal, metallic-ceramic and allceramic crowns were included in the study, and patients with crowns coated with Persil and ceramic veneers were excluded. After reviewing past studies to assess patients' awareness, attitudes and performance; A questionnaire containing the following information was designed:

- Demographic information including age, gender, level of education, type of prosthesis and duration of prosthesis use
- Measure 7 questions, knowledge of the need for health control, necessary care of the fixed prosthesis and its possible side effects.
- Performance questions included 5 questions with two options, yes and no, which scored 1 and 0, respectively. The questionnaire was reviewed by 7 professors of the Department of Dental Prosthetics of the Faculty and the validity of the questions was confirmed. In order to check the reliability of the questionnaire, first the questionnaire was given to 15 clients as a pilot and its index was calculated which had a standard level of 0.7. Then the questionnaire designed by the researcher was provided to patients and the required information was self-reporting They were collected.

After collecting the questionnaires, the data were encoded and entered into the computer and analyzed using SPSS23 software and t-test, ANOVA and Pearson correlation tests. It should be noted that this study has been approved by the "Ethics Committee in Research of Shahid Sadoughi University of Medical Sciences in Yazd" number IR.SSU.REC.1397.142.

Results

In this study, 210 patients completed a research questionnaire, of which 97 (46.2%) were male and 113 (53.8%) were female. Average age 23.86 ± 10.92 and age range was 15 to 67 years old.

The mean score of the patients surveyed on oral hygiene was 4.10 ± 52 4.52. And the mean score of the patients' attitudes towards oral hygiene was 12.21 ± 1.45 . Also, the mean score of patients' performance was 1.81 ± 1.06 . 77.6% of participants brushed daily. Of these, 103 people brushed once a day, 46 twice a day and 14 times three times a day. The relative frequency of patient responses to performance questions (multivariate) is shown in Table 1. Table 1. Frequency distribution of patients' answers to

Table 1 Frequency distribution of patients' answers to performance questions (Likert spectrum)

NO Number (%)	Yes Number (%)	questions	
47(22/4)	163(77/6)	Do you brush your teeth daily?	
33(73/4)	12(26/6)	If you have a dental bridge, do you use a special toothbrush and floss to clean under it?	
85(40/5)	125(59/5)	Do you use dental floss?	
149(71/0)	61(29/0)	Do you use mouthwash?	
175(83/3)	32(15/2)	Do go to the dentist every 6 months for examination?	

Pearson correlation coefficient was used to investigate the relationship between age, duration of prosthesis uses and education with awareness, attitude and performance scores. The awareness and attitude of older people was higher in people who had used the prosthesis for a long time. Awareness and attitude were also directly related to the level of education (P-value> 0.05). Patient

performance was not significantly associated with any of the indicators examined.

Table 2: Relation of awareness scores, attitudes and performance with age indicators, duration of prosthesis use and education

p-value	Pearson		
	Correlation		
0/033	0/147	Awareness	
0/002	0/217	Attitude	age
0/751	0/022	Performance	
0/002	0/215	Awareness	The
0/009	0/181	Attitude	duration of
0/377	-0/062	Performance	using the
			prosthesis
0/000	0/410	Awareness	
0/000	0/332	Attitude	education
0/547	0/039	Performance	

Discuss

This study was designed to assess the awareness, attitude and performance of patients using fixed dental prosthetic prostheses in relation to oral hygiene in Yazd (Iran). 210 patients were randomly selected as a sample. Unlike Gualala et al. (22), in the present study, patients with veneers were more likely than patients with bridges. Gualala et al. The rest have stated. Conversely, this ratio in our study could be due to the different study population and the willingness of the people of Yazd to repair their teeth and not treat fixed prostheses due to lack of insurance coverage and poor economic situation. In the present study, the mean score of patients' awareness was 4.10 out of 7 scores, which was at the average level. Awareness-based studies on oral hygiene in Yazd, as well as in countries such as Saudi Arabia (23), India (24) and China (25), have downgraded the awareness of their participants. Awareness studies in people with a fixed prosthesis have also underestimated the awareness of these patients. Shetty et al. (26) reported that 200 patients with fixed prostheses reported that these patients had low awareness and the reason for this was the lack of education and lack of access to the Internet. In the study of Gualala et al. (22), awareness was also very low. In the present study, the mean score of patients' attitudes was 12.21 out of 14, which shows the good level of attitudes of patients with fixed prostheses in Yazd about oral health. In the study of line et al. (25), although the awareness of the participants in the study was low, people who had a better attitude towards oral hygiene also had better performance in this area. However, this is not the case in our study, and despite the high attitude, the performance scores were poor. The reason for this difference was probably the difference in performance questions.

In the present study, the mean score of patients' performance was 1.81 out of 4 scores and was low. Seventy-seven percent of patients were brushing their teeth. Fifty-nine percent used dental floss, 29 percent used mouthwash, and only 15 percent went to the dentist once every six months. In the study, Sen et al. (24), although participants performed well, only 14% of people went to the dentist every 6 months. In a systematic review study, Watt and Marino concluded that oral health education allows people to maintain good oral hygiene for up to six months. However, in the long run, the effect of these trainings decreases. It seems that people are thinking about taking care of their teeth as they get older and lose more teeth. Awareness and attitude also had a direct and significant relationship with the level of education. The relationship between oral health and education is well illustrated in previous studies (28). Concerning the awareness and attitude of the present study, it has been consistent with previous studies. But in terms of

performance, there was no relationship with education.

Conclusion:

Health is a basic human need and has been proven to be unattainable without oral health (24). Patients incur significant costs to rebuild their dental system. However, for various reasons, they fail to maintain it. This study showed that patients with a fixed prosthesis in Yazd city have a moderate awareness of good oral hygiene, good attitude and yet poor performance. The study also showed the effect of education on high awareness and attitude. Dentists can help patients keep their mouths healthy by educating and motivating patients.

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