



AWARENESS AND ATTITUDES OF PATIENTS TOWARDS PROSTHETIC REHABILITATION OF MISSING TEETH AT A UNIVERSITY DENTAL HOSPITAL

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ABSTRACT

Aim: To evaluate the awareness and attitude of patients towards dental prosthesis for rehabilitation of missing teeth.

Methods: This was a cross-sectional quantitative study. The evaluation was done using a questionnaire which was distributed to patients attending the University dental hospital of Riyadh colleges of dentistry and pharmacy, Riyadh, Kingdom of Saudi Arabia. The data was collected and analyzed using SPSS.

Results: Of the 130 respondents, 107 had missing teeth of which 59 (81.9%) were females and 48(82.8 %) were males. Among the 82.3% who had missing teeth, 53.1% did not get their lost teeth replaced. Only 28.5 % were aware of dental implant as a rehabilitation technique for missing teeth.

Conclusion: Among the 82.3% who had missing teeth, 53.1% of them did not get their lost teeth replaced. The findings from this study can be used in improving patient's motivation and leading them to a favorable decision making.

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INTRODUCTION

Prosthodontics is concerned with the replacement of partial or complete loss of teeth and oral function due to tooth or tissue damage. The face is widely regarded as a symbol of "self" and a smile as a window into one's personality (Shigli Hebbal *et al.* 2007). Teeth play a significant role in maintenance of a healthy personality and self-image. The presence of teeth in oral cavity helps maintain a positive outlook in life (Roessler 2003). Tooth loss is a psychologically disturbing experience and is considered to be a serious event in the life of a person requiring significant psychological readjustment (Fiske Davis *et al.* 1998). Patient's perception plays a major role in the decision for replacement of posterior teeth and cosmetic dental treatment (Osterberg Hedegård *et al.* 1984). Nowadays, people consider tooth loss as a serious life event, both at a social as well as at psychological level (Fiske Davis *et al.* 1998; Omar Tashkandi *et al.* 2004).

Currently, the perception and attitude that patient have regarding tooth loss is undergoing a change (Allen and McMillan 2003). Patients may suffer real or perceived detrimental effects following the loss of one or more teeth which substantially reduce the quality of life affecting the patient emotionally, socially, physically, and psychologically (Slade and Spencer 1994; Craddock 2010). In the recent past, prosthetic treatment involved replacement of missing teeth by means of removable partial dentures (RPD's), fixed dental prosthesis(FDP's), complete dentures, or over dentures. Recently, requirements such as esthetics and functional comfort are considered more important and more easily achieved with dental implants (Käyser 1981; Kalk Käyser *et al.* 1993). The aim of this study was to evaluate the awareness and attitude of patients towards dental prosthesis for rehabilitation of missing teeth.

MATERIALS AND METHODS

This cross-sectional survey was conducted at Riyadh colleges of dentistry and pharmacy (RCsDP). The study sample of 130 subjects was randomly selected from patients attending the

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dental clinics of RCsDP. A self-administered questionnaire containing eleven questions awareness and attitude on replacement of missing teeth was distributed to the patients. Questions were regarding missing teeth and replacement techniques. Socio-demographic details including age, gender, and educational level was noted. Ethical committee clearance was obtained. Data was collected and analyzed using the SPSS Version 22 for Windows. Frequencies were generated and mean calculated using descriptive analysis.

Chi-square test was used to identify statistical significance. A p value of ≤ 0.05 was considered as statistically significant.

RESULTS

Of the 130 respondents, 58 (44.6%) were males and 72 (55.4%) were females. The mean age of the respondents was 38 years, ranging from 23-60 years. Half the respondents had high school level of education (50%, n=65). Table 1 shows the descriptive analysis of the questionnaire items.

Table 1. Questionnaire items and their responses

Questionnaire items		n	%
Reasons for which missing teeth must have prosthodontic rehabilitation	Esthetic	17	13.1
	Function	15	11.5
	Both	98	75.4
Source of awareness about prosthodontic rehabilitation	Dentist	75	57.7
	Media	34	26.2
	Friends	17	13.1
	Others	4	3.1
Options that are available in the field prosthodontic rehabilitation	Yes	56	43.1
	No	74	56.9
Which of the following options do you fully know about?	Fixed	80	61.5
	Removable	39	30.0
	Implant	11	8.5
	Fixed	81	62.3
Your preferred dental prosthesis	Removable	19	14.6
	Implant	30	23.1
Awareness about dental implant	Yes	37	28.5
	No	93	71.5

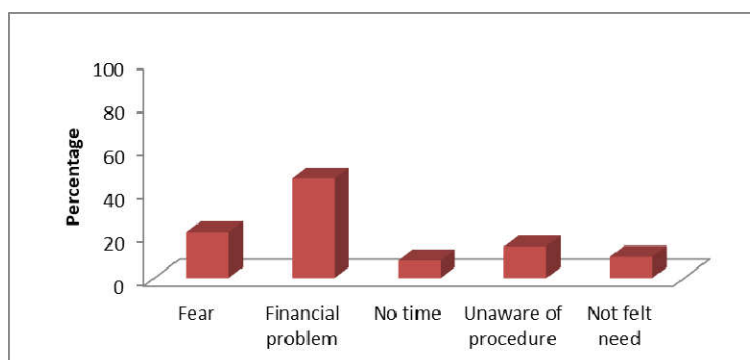


Figure 1. Reasons for not seeking prosthodontic treatment

Table 2. Association between awareness of prosthodontic treatment and gender

		Male		Female		p value
		n	%	n	%	
Do you have missing teeth?	Yes	48	82.8	59	81.9	0.904
	No	10	17.2	13	18.1	
Have you received any prosthodontic rehabilitation?	Yes	28	48.3	33	45.8	0.781
	No	30	51.7	39	54.2	
Missing teeth should be replaced with artificial teeth	Yes	48	82.8	62	86.1	0.598
	No	10	17.2	10	13.9	
Reasons for which missing teeth must have prosthodontic rehabilitation	Esthetic	1	1.7	16	22.2	0.002*
	Function	9	15.5	6	8.3	
	Both	48	82.8	50	69.4	
Source of awareness about prosthodontic rehabilitation	Dentist	31	53.4	44	61.1	0.512
	Media	17	29.3	17	23.6	
	Friends	7	12.1	10	13.9	
	Others	3	5.2	1	1.4	
Options that are available in the field prosthodontic rehabilitation	Yes	25	43.1	31	43.1	0.996
	No	33	56.9	41	56.9	
Which of the following options do you fully know about?	Fixed	37	63.8	43	59.7	0.177
	Removable	19	32.8	20	27.8	
	Implant	2	3.4	9	12.5	
Your preferred dental prosthesis	Fixed	35	60.3	46	63.9	0.432
	Removable	11	19	8	11.1	
	Implant	12	20.7	18	25	
Awareness about dental implant	Yes	17	29.3	20	27.8	0.847
	No	41	70.7	52	72.2	

* Indicates statistical significance

Of the total 130 respondents, 107 (82.3%) had missing teeth of which 59 (81.9 %) were females and 48 (82.8 %) were males. Sixty one of the 107 patients with missing teeth had got a prosthesis done. Among the 61 (46.9%) respondents who had prosthesis, half of them were satisfied. The majority reported that missing teeth should be replaced with artificial teeth (84.6%, n=110). Most of the respondents reported financial problem as a reason for not seeking prosthodontic treatment (Figure 1). One hundred and ten (84.6%) respondents had the awareness that they have to replace the missing tooth. The majority (n=98, 75.4%) of the respondents wanted to improve both function and esthetics. Most of them were aware about prosthetic rehabilitation by dentists. Media and other sources provided least information about the importance of tooth replacement. The majority of the subjects preferred to have fixed prosthesis. Only 28.5 % were aware of dental implant as a rehabilitation technique for missing teeth. The association between questions on attitude and awareness replacement of missing teeth and socio-demographic details are shown in Tables 2 and 3.

This study is in accord with the findings of a previous study in which majority did not opt for treatment mainly due to financial constraint (Raj Reddy *et al.* 2014). From the present study, it can be observed that most of the subjects were not aware of dental implants. Through increased awareness of patient expectations, prostheses can be planned, made, and placed in harmony with the hard and soft oral tissues and in harmony with the patient's expectations (Conny Tedesco *et al.* 1985).

Lack of awareness of different prosthodontic treatment option among patients prevents them from availing of treatment (Menezes and Aras 2009). Dental camps and prosthodontic outreach programs are possible solutions to change attitudes, spread awareness, and extend treatment. It is recommended that the location of missing teeth need to be considered as a priority when educating patients on the most appropriate prosthetic treatment options.

Table 3. Association between awareness of prosthodontic treatment and educational level

		Middle school		High school		Bachelor degree		Master degree		p value
		n	%	n	%	n	%	n	%	
Do you have missing teeth?	Yes	11	100	51	78.5	42	85.7	3	60.0	0.152
	No	0	0.0	14	21.5	7	14.3	2	40.0	
Have you received any prosthodontic rehabilitation?	Yes	6	54.5	30	46.2	22	44.9	3	60.0	0.874
	No	5	45.5	35	53.8	27	55.1	2	40.0	
Missing teeth should be replaced with artificial teeth	Yes	9	81.8	54	83.1	42	85.7	5	100	0.920
	No	2	18.2	11	16.9	7	14.3	0	0.0	
Reasons for which missing teeth must have prosthodontic rehabilitation.	Esthetic	1	9.1	9	13.8	7	14.3	0	0.0	0.642
	Function	3	27.3	6	9.2	5	10.2	1	20.0	
	Both	7	63.6	50	76.9	37	75.5	4	80.0	
Source of awareness about prosthodontic rehabilitation	Dentist	7	63.6	38	58.5	28	57.1	2	40.0	0.401
	Media	3	27.3	18	27.7	11	22.4	2	40.0	
	Friends	1	9.1	9	13.8	7	14.3	0	0.0	
	Others	0	0.0	0	0.0	3	6.1	1	20.0	
Options that are available in the field prosthodontic rehabilitation	Yes	1	9.1	24	36.9	29	59.2	2	40.0	0.007*
	No	10	90.9	41	63.1	20	40.8	3	60.0	
Which of the following options do you fully know about?	Fixed	1	9.1	40	61.5	34	69.4	5	100	0.000*
	Removable	10	90.9	21	32.3	8	16.3	0	0.0	
	Implant	0	0.0	4	6.2	7	14.3	0	0.0	
Your preferred dental prosthesis is	Fixed	5	45.5	43	66.2	29	59.2	4	80.0	0.001*
	Removable	6	54.5	11	16.9	2	4.1	0	0.0	
	Implant	0	0.0	11	16.9	18	36.7	1	20.0	
Awareness about Dental implant	Yes	0	0.0	15	23.1	22	44.9	0	0.0	0.003*
	No	11	100	50	76.9	27	55.1	5	100	

* Indicates statistical significance

DISCUSSION

Good oral health is a major resource for social, economic and personal development of individuals (Khan Dawani *et al.* 2012). Teeth are required for mastication, phonetics, esthetics, structural balance, and for the comfort of an individual. An appreciation for the perceptions and attitudes of patients towards the replacement of teeth would prepare a prosthodontist more completely to provide a satisfying prosthesis.

It is important to investigate patients' awareness and attitude towards dental prosthesis for rehabilitation of missing teeth. From the present study, it can be observed that the subjects were aware of the needs of dentures in contrast to previous studies (Suresh and Sharma 2010). In the current study the main source of information about the replacement of missing teeth was dentist for both genders which is in agreement with a previous study (Mukatash Al-Rousan *et al.* 2010).

Conclusion

Among the entire sample in the survey, 82.3% had missing teeth and 53.1% among them did not get their lost teeth replaced. Financial problems and lack of awareness are the major factors associated with the preferences for implant treatment among the patients for the study. These findings can be used in improving patient's motivation and leading them to a favorable decision making. Participation of dentists in educating patients on prosthetic options needs to be improved.

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