

Awareness Regarding Prosthodontic Rehabilitation Among Patients Attending in Bangabandhu Sheikh Mujib Medical University

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Abstract

Background: The loss or removal of one or more of the natural teeth and adjacent structures may result in disabilities in daily living activities such as impaired eating, speaking, or social embarrassment. Prosthodontics is concerned with the replacement of lost teeth and adjacent structures to restore oro-facial function and aesthetics. Knowledge of subjects regarding prosthodontic treatment may play a role in their acceptance of the prostheses.

Aim: To evaluate the level of awareness regarding prosthodontic rehabilitation among patients attending department of Prosthodontics in Bangabandhu Sheikh Mujib Medical University was the objective of the study.

Methods: A total of 233 patients were consecutively selected as per inclusion and exclusion criteria from outpatient department of Prosthodontics of BSMMU during a period of six months from November 2016 to April, 2017. Patients were interviewed and data were collected by asking questions from the participants.

Results: Average age of patients was 46.48±11.28 years. Majority of patients were educated. The present study showed that patient's awareness about teeth replacement was very high. About 67% had medium level of awareness. 16.7% had high level of awareness with only 16.3% having low level of awareness. Conclusion: Health education programme particularly prosthodontic rehabilitation should be launched in effective manner.

Key words: awareness; prosthodontic rehabilitation

Introduction

Oral health is important to such an extent that it can hinder a person's ability to work and concentrate on his routine work. Tooth loss is one of the most important factors which causes distress and sometime devastating affecting the person's quality of life (Hussain et al., 2015). The well-being and quality of life is often affected by the common oral changes and conditions of the individuals (Nagappa et al., 2016). Prosthodontics plays main role for the rehabilitation of patients after loss of oral structures and functions (Ramana et al., 2015). Common oral conditions have been shown to have a substantial effect on well-being and quality of life. There are various treatment

modalities available for replacement of teeth. Nowadays, the main goal of the modern dental treatment is to restore the patient's normal function, speech, esthetics, as well as health (Nagappa et al., 2016). Replacement of missing teeth by dental prosthesis depends on multiple factors. Among those factors awareness of the patients about dental prosthesis is one of the very important factors. A large number of patients experience difficulties in adapting to removable prosthesis while a smaller number are unwilling to accept removable prosthesis at all (Suprakash et al., 2013). This may be because of various factors involving anatomy, physiology, psychology and

prosthodontics. Inferior masticatory ability, difficulty with denture retention, speech and mastication make removable prosthesis difficult to accept. With advent of new technology more restorative options are available thereby changing the face of demand for Prosthodontics treatment. Similarly, incomplete information, negative information, treatment cost, fear of procedures, long treatment period, false beliefs among public are barriers to take prosthodontics treatment procedure in our country. The study has been designed to evaluate the level of awareness of patients towards the options for replacing missing teeth and surrounding structures.

Methods

The study was designed with the major objective to evaluate the level of awareness regarding Prosthodontic rehabilitation among patients attending department of Prosthodontics in BSMMU. The study was conducted in prosthodontic department of BSMMU where partial or complete edentulous patients seeking prosthetic treatment were taken

as the study population. A sample of 233 patients was selected purposively for interview. The respondents were informed about the purpose of the study and their voluntary participation was sought. Before interviewing a written informed consent was taken assuring that the collected data would be kept confidential. Data were collected, checked and cross checked before entry into a computer and analyzed with the help of SPSS Windows Software Programme (version 17).

Result

A total of 233 patients were consecutively selected as per inclusion and exclusion criteria from outpatient department of Prosthodontics of BSMMU. The following are the results of the study. The results are presented in the form of tables and graphs. The categorical variables were analyzed by chi-square test and quantitative variables were expressed as mean±SD and p value was considered significant when p was <0.05.

Age in years	Male	Female
	n	n
>25	11	9
25-34	33	22
35-44	25	23
>45	55	55
Total	124	109

Figure 1: 20D condensing lens and speculum used for screening.

The mean age of patients was 46.48 ± 11.28 years.

Level of education	Male	Female
	n	n
Illiterate	7	10
Primary	23	29
Secondary	21	18
Higher secondary	24	24
Graduate	49	28
Total	124	109

Table 2: Distribution of patients according level of education.

Most of the study subjects were graduates.

Sex	Case (Vitamin A) (n=76) n (%)	Control (n=72) n (%)	p-value
Male	40(52.6)	45(62.5)	0.225 ^{ns}
Female	36(47.4)	27(37.5)	
Total	76(100.0)	72(100.0)	

Table 3: Distribution by patients according to awareness of replacement of missing teeth.

Statistically insignificant association was found between gender and awareness regarding replacement of missing teeth.

Knowledge on benefits of replacement of missing teeth	Male	Female	Total	p value	Chi-square
Yes	107	93	200	0.056	3.6852
No	17	16	33		
Total	124	109	233		

Table 4: Comparison of stages of ROP findings in two groups (n=148) in different follow up.

Statistically insignificant association was found between gender and awareness regarding replacement of missing teeth.

Awareness about types of replacement	Male	Female	p-value	Chi-square
Fixed Partial Denture	111	94	0.9202	0.5183
Removable Partial Denture	52	48		
Complete Denture	47	38		
Implants	15	10		

Table 5: Distribution by patients according to awareness about types of replacement.

It was found insignificant association between types of replacement and gender.

Plus Disease	Case (Vitamin A) (n=76) n (%)	Control (n=72) n (%)	p-value
1 st follow up			
Present	1(1.3)	1(1.4)	1.000 ^{ns}
Absent	75(98.7)	71(98.6)	
2 nd follow up			
Present	2(2.6)	3(4.2)	0.605 ^{ns}
Absent	74(97.4)	69(95.8)	
3 rd follow up			
Present	21(27.6)	41(56.9)	<0.001***
Absent	55(72.4)	31(43.1)	

Table 6: Distribution of patients according to types of prosthodontics rehabilitation that patient received..

It was found insignificant association between types of prosthodontics rehabilitation and gender.

Comments by ophthalmologist	Case (Vitamin A) (n=76) n (%)	Control (n=72) n (%)	p-value
1 st follow up			
No ROP	68(89.5)	67(93.1)	0.442 ^{ns}
ROP	8(10.5)	5(6.9)	
2 nd follow up			
No ROP	56(73.7)	35(48.6)	0.002**
ROP	20(26.3)	37(51.4)	
3 rd follow up			
No ROP	51(67.1)	29(40.3)	0.001**
ROP	25(32.9)	43(59.7)	

Table 7: Distribution by patients according to knowledge and attitude score.

Patient's level of knowledge and awareness was assessed by asking 7 questions and level of attitude by asking 4 questions regarding prosthodontics rehabilitation. An affirmative answer to the questions was regarded as correct and a negative response was considered as incorrect. Each correct answer was scored 1.5 and each incorrect answer was scored 0. Total aggregate score of all questions was 16.5. In the end maximum score a patient got out of 16.5 was calculated. Awareness was assessed on a grading scale, designating the patients having high level (above 10), medium level (6 to 10), low level (0 to 5) of awareness. Data were analyzed using SPSS version 17.

Discussion

Oral health means much more than just healthy teeth. Good oral health is a major resource for social, economic and personal development of individuals. Teeth are required for mastication, phonetics, esthetics structural balance and for the comfort of the individuals (Reddy et al. 2016). Patients

rarely visit dental offices for replacement of a few missing teeth unless and until they face chewing difficulties or have esthetic concerns. The present study found combined mean age of patients 46.48 years with SD 11.28 years. The present study showed that patient's awareness about missing teeth (to be replaced) was very high. Awareness about replacement of lost teeth was also very high, 99% as found by Ramana (2015). Majority of patients who participated in this study were educated, about 33% held graduate and 20.7% had higher secondary qualifications with only 7.3% patients being uneducated. High level of education may be one of the main reasons that majority of our sample population i.e 67% had medium level of awareness. 16.7% had high level of awareness with only 16.3% having low level of awareness as per the criteria defined. This is in contrast to another study conducted in India by Satpathy et al (2011), who reported that 15.9% of their sample had awareness of dental implant treatment, which is quite low. This may also be attributed to the fact their study was focused towards implant supported rehabilitation whereas ours was more generally designed for

establishing awareness about all available prosthodontic options. Similarly in another earliest survey investigated public awareness about dental implants in 120 American citizens and reported awareness level was high. Most of the patients were not interested in having removable prosthesis as the treatment modality in replacing missing teeth, which confirms the fact that most patients prefer fixed prosthesis regardless of the situation they have. In the present study awareness regarding implant supported prosthesis was only 10.7% which is in contrast to the study conducted in India where awareness regarding implant supported prosthesis was 41.7% which was very high. Similarly, the study conducted by Berge in Norway reported even more awareness about dental implant which was 70.1%. This study was based only on patients seeking prosthetic treatments in prosthodontics department of BSMMU. Majority of the patients were unskilled and educated only till secondary level of education or less. Socioeconomic status is a major factor affecting the preference of artificial prosthesis which has not been taken into account in this study. Age distribution was chosen randomly. Social science research has always some limitations. Time constrains and lacks of resources were major limitations of the study. Small sample size was another issue in favor of limitation of the study. In future, large-scale study can be conducted to get more precise result.

Conclusion:

The study concluded that patient's awareness about teeth replacement was very high. About 67% had medium level of awareness. 16.7% had high level of awareness with only 16.3% having low level of awareness. A nationwide survey should be done on patients attending prosthodontics department of different hospitals as well as other alternative treatments of prosthodontics to know their socio demographic characteristics their views, ranges of treatment etc.

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