



Full Length Research Paper

Knowledge, Attitudes towards Prosthodontics Rehabilitation and Utilization of Dental Services among Songadh and Amargadh Population

¹*Dr. Nirmal Raj, ¹Dr. Naveen Reddy, ¹Dr Sanajay Japatti, ¹Dr. Mathew Thomas,
¹Dr. Roshan Uthappa

¹Department of Prosthodontics, College of Dental Sciences, Amargadh Dist., Gujarat State - 364 210

*Corresponding author email: dr.nirmalraj@gmail.com

Abstract

The Prosthodontic health status and Prosthodontic rehabilitation needs of Songadh and Amargadh local population were not well documented. To evaluate the level of knowledge, attitude, and behavior of a group of Bhavnagar population towards Prosthodontic rehabilitation and the factors that preventing them from the treatment. Knowledge and perceived needs of subjects regarding Prosthodontics play an important role in their acceptance to prosthetic rehabilitation. A self-designed questionnaire containing nine questions was designed and reasons for choosing or refusing treatments were measured using Likert scale. A survey of 249 randomly selected subjects was conducted among the patients and relatives reported to the College of Dental Sciences, Amargadh, Gujarat. Collected data were statistically analysed using SPSS V.19 for descriptive statistics along with Chi-squared test at a significance level of $p < 0.05$. Results: Age was ranging from 20 to 84 years with a mean age of 54.13 ± 13.797 years with 55.8% males and 44.2% females. Out of the 249 participants, 95.4% had heard about Prosthodontic rehabilitation as a dental treatment modality, with no statistical significance difference between males and females ($P=0.078$). Out of these, 84.4% people with missing teeth only 47.4% people were willing to undergo treatment if needed. Individual perception of potential reasons for treatment selection was the most important determinants of patients' decisions based on knowledge, awareness and motivation. By conducting this study the individual perception and potential reasons behind treatment selection and its relation to patient's knowledge, awareness and motivation can be assessed. The findings can be used in improving patient's motivation and leading them to a favorable decision making.

Keywords: Knowledge; prosthodontic treatment; awareness; survey; patient acceptance of health care; prosthetic replacements.

INTRODUCTION

In its broadest sense, Prosthodontics is concerned with the replacement of partial or complete loss of teeth and oral function due to tooth or tissue damage (Carlsson GE and Omar R, 2006). Prosthetic treatment involves the replacement of few missing teeth in a healthy but incomplete dentition, the functional replacement of nearly all teeth in a badly damaged dentition, or restoring

function by means of removable or FPDs, implants, complete dentures, or over dentures (Mukatash et al., 2010 and Zarb GA et al., 1978). With the rapid improvement in oral health and the reduction of edentulism in many countries, increasing numbers of people are retaining more teeth later in life (Carlsson GE and Omar R, 2006). Knowledge of subjects regarding

prosthodontic treatment may play a role in their acceptance of the prostheses (Shigli et al., 2007). The aim of this paper was to evaluate the level of knowledge, attitude, and behavior of a group of Bhavnagar population aged 20-84 years toward the options available for replacing missing teeth and the factors preventing them from taking treatment.

MATERIALS AND METHODS

The present study was a questionnaire survey conducted at College of Dental Sciences, and the surrounding areas. The study samples of 249 subjects were randomly selected from patients, persons accompanying the patients, and from the residents of Songadh and Amargadh. The sample population consists of 139 males and 110 females within an age range of 20 to 84 years. A self-designed questionnaire containing nine questions was designed on knowledge and awareness for different Prosthodontic treatment modalities and reasons for choosing or refusing treatments were measured (Table1). Ethical committee clearance was obtained. Initially a pilot study was carried out with twenty patients recruited in the same manner as in the main study to check the feasibility of the study and the questions were modified accordingly. Following the successful pilot study in which the questionnaire was validated, potential subjects were approached to carry out the main study. At least a high school educational level was requested from the randomly selected studied groups to be examined and to fill in the questionnaire. The dentist, dental technicians, and assistants were excluded from the study. Socio-demographic details including age, gender etc was noted. A total of 300 questionnaire forms were distributed and 250 were returned back (response rate was 83.3%). Collected responses were tabulated.

Statistical Analysis: Data was statistically analyzed using the SPSS V.20 program. Frequencies were generated and mean calculated with standard deviation using descriptive statistical analysis. Chi-squared test was used to identify significance. The probability was assessed using P value by considering $p < 0.05$ as significant.

RESULTS

The study sample consisted of 55.8% males (N=139) and 44.2% females (N=110) with a mean age of 54.13 ± 13.797 years. Analysis of sociodemographic details shows that there was no statistically significant difference between the gender distribution and age of the sample population $P=0.211$. Each question was analysed

for the frequency and the relation between the gender difference was tabulated (Table 2).

Question 1: Awareness about missing teeth replacement: The results show that 95.2 % (N=237) of the study population including both males and females has the awareness that they have to replace the missing tooth. There was no statistically significant difference between the genders ($P>0.05$).

Question 2: Knowledge about various treatment options: Out of the 249 individuals 100% (N=249), 43.77% (N=109), 80.7 % (N=201) and 10.84% (N=27) had the knowledge of complete denture, Removable Partial Denture, Fixed Partial denture and Implants respectively.

There were no significant differences noted statistically $P>0.05$.

Question 3: Have any missing teeth: 84.3% (N=210) individuals that participated in this study had missing teeth. The males showed a higher frequency of missing teeth than females. This result was statistically proven with chi square test, $P=0.046$ (Table 2). There was no statistical difference between the loss of anterior and posterior teeth.

Question 4. Duration of tooth loss: The duration of missing teeth among the participant of the survey was 32.23 ± 56.31 months for males and 27.79 ± 32.97 months for females. There was no statistical difference between the genders $P= 0.464$.

Question 5: Attitude towards prosthetic rehabilitation: Considering the attitude towards the replacement of the missing teeth with prosthesis 47.45% (N=118) individuals were positive and were planning to replace the missing teeth. But there were no significant differences between the genders even though comparatively more men were willing for replacement.

Question 6: Type of Replacement perceived: Comparison of the individual's knowledge toward different prosthetic replacement options and their perceived option for replacing the missing tooth were as follows. Most of the people were willing to replace the missing teeth with Fixed partial denture i.e., 66.16 % (N= 133/201), compared to 18.47% (N= 46/249) for complete denture and 37.61% (N= 41/109) for removable partial denture. The individuals who had a knowledge of implants preferred to replace their missing teeth with implants, i.e., 88.88% (N=24/27). But these results were not significant within groups and between genders.

Question 7: Reasons for not replacing the missing teeth: The main reason for not undergoing the prosthodontic replacement was financial constraint in this study population (51.8% ,N= 129), followed by lack of knowledge , regarding the prosthetic replacements (32.5%, N=71) and lack of motivation by the dentist towards the same (15.7%, N=39) and these observations were not statistically significant.

Question 8: The setup where individual would like to

Table 1. Survey to analyze the Knowledge of Prosthodontic Rehabilitation

Q. No.	Question
	Age: _____ Sex: _____
	Are you aware that missing teeth have to be replaced? Yes / No
	The various types of replacement that they are aware of a. Complete Denture b. Removable Partial Denture c. Fixed Partial Denture d. Implants
	Do you have any missing teeth? Yes / No If Yes Anterior Posterior
	How long have the teeth been missing?
	Did you get them replaced? Yes / No
	Type of replacement: a. Complete Denture b. Removable Partial Denture c. Fixed Partial Denture d. Implant supported
	If not replaced then why? a. Financial Constraints b. Inadequate Knowledge c. Not motivated
	Where would you like to go for replacement of missing teeth? a. Dental Clinic b. General Hospital c. Dental College d. Others
	Are you aware that there is a dental college where replacement of missing teeth will be done in Amargadh? Yes / No.

get the prosthetic replacement done: Out of the 249 participants 53.01% (N=132) preferred to get the prosthesis done from dental college and 34.13% (N=85) from Dental clinic and 9.23% (N=23) opted for general hospitals.

Question 9: Awareness about the availability of Prosthetic replacement treatment in College of Dental Sciences, Amargadh: The results shows that 87.2% (N=217) participants were aware about the treatment facility in the college.

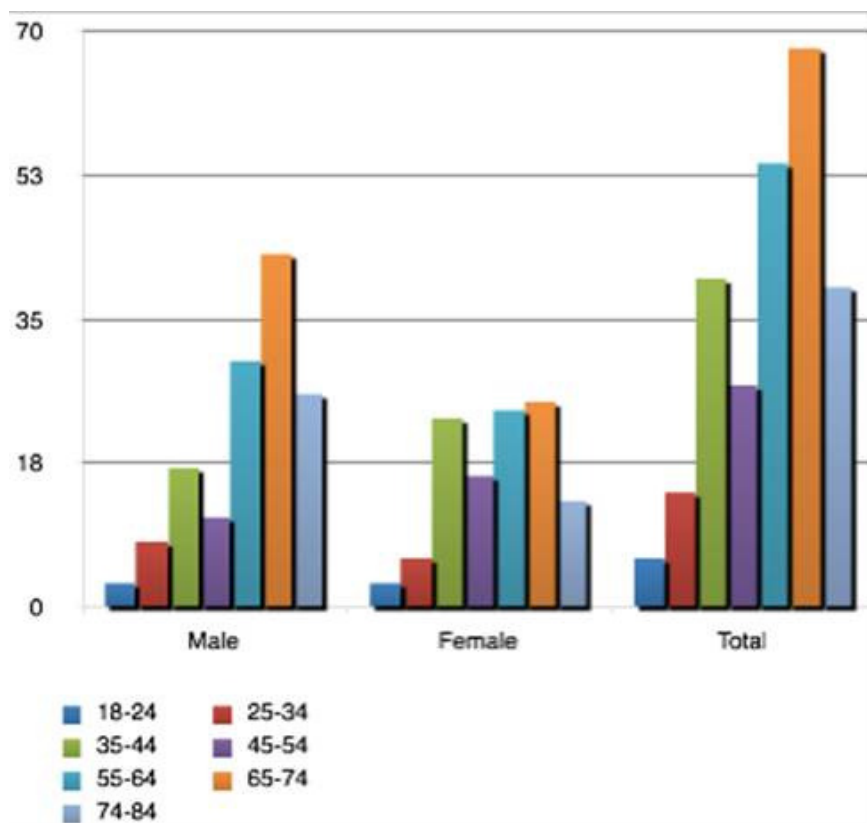
DISCUSSION

Oral health means much more than just healthy teeth. Good oral health is a major resource for social, economic and personal development of individuals (Khan SA et al., 2012). Teeth are required for mastication, phonetics,

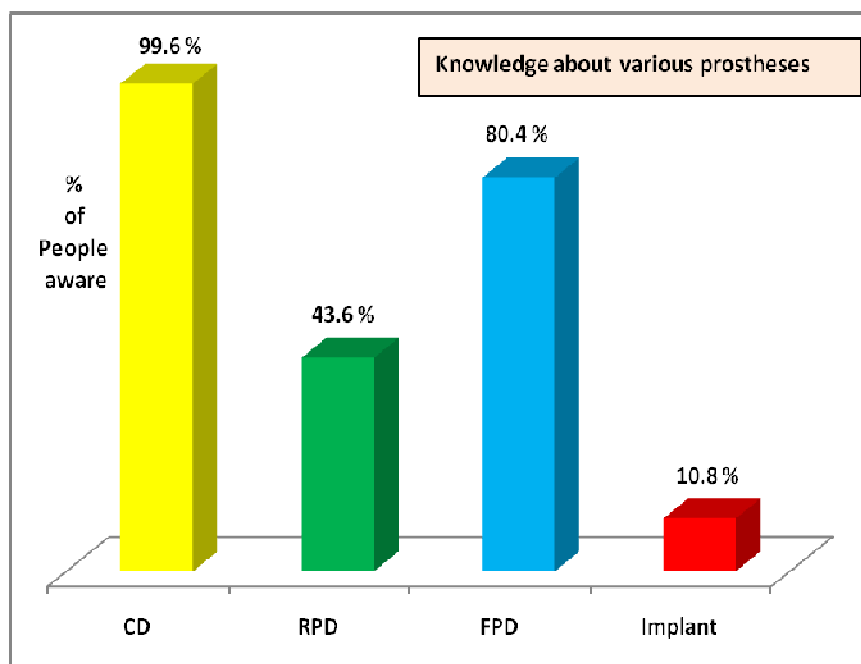
esthetics, structural balance and for the comfort of an individual. With the loss of teeth, the above functions are impaired resulting in physical and physiological, psychological trauma to the individual (S S, Sharma S, 2010). Preventive dental care is almost non-existent in rural India (Parlani S et al., 2011). Initiatives should be aimed not only on the prevention but also on the curative aspects of oral health. Mobile dental clinics, dental camps, and prosthodontic outreach programs are possible solutions to change attitudes, spread awareness, and extend treatment. Lack of awareness of different prosthodontic treatment option among people living in rural village prevents them from availing of treatment even though there are many Government set ups that offer treatment free of cost (Menezes M and Aras M, 2009). From the present study, it can be observed that the subjects were aware of the needs of dentures in contrast to previous studies (S S, Sharma S, 2010).

Table 2. Result of the Survey

Question	Male	Female	P
1 Awareness			
Yes	134	103	0.114
No	3	7	
No Answer	2	0	
2 Knowledge			
CD	139	110	0.249
RPD	58	51	0.730
FPD	115	86	0.426
Implant	15	12	1.000
3 Missing Tooth			
Yes	119	91	0.046*
No	11	17	
No Answer	9	2	
Anterior Yes	64	60	0.203
No	75	50	
Posterior Yes	91	69	0.691
No	48	41	
4 Duration of edentulism			
Mean	32.23	27.79	0.464**
SD	56.319	32.974	
5 Attitude Towards Treatment			
Yes	62	56	0.552
No	55	41	
6 Type of Treatment Option			
CD	31	15	0.152
RPD	19	22	
FPD	76	57	
Implant	13	11	
7 Reason for avoidance of treatment			
Financial Constraints	70	59	0.350
Inadequate Knowledge	45	36	
Not Motivated	24	15	
8 Choice of treatment setup			
Dental Clinic	43	42	0.334
Dental College	79	53	
General Hospital	14	9	
Other	3	6	
9 Awareness of treatment options in College of dental Science			
Yes	123	94	0.645
No	16	16	



Graph 1. Age vs. Gender Distribution of the Sample population



Graph 2. Percentage of population aware of the various prosthodontics treatment modalities

This may be due to the increase in technology and media. When asked about the attitude towards the replacement, even though the participants had the knowledge about the need for replacement, majority did not opt for treatment mainly due to financial constraint. Most of the patients opted to get treated from the dental college than private clinics; this may be to reduce the financial burden following a prosthetic replacement. The study suggests that in general the dentist must spend more time on the chair side during examination and motivate the patient regarding the need of a denture so as to get a proper response in relation to need of a denture which was similar to previous observations in literature (S S, Sharma S, 2010). Even though there is a scarcity of data regarding patient's needs and preferences in field of fixed prosthodontics, this study shows an increase in demand for fixed partial denture by the individual with knowledge of the same. From the present study, it can be observed that most of the subjects were not aware of dental implants. This implies that persons whether male or female need motivation and education to help them realize the needs of implants.

CONCLUSION

In conclusion complete dentures are associated with lower expected outcomes, while cost-related issues and lack of awareness are the major factors associated with the preferences for implant treatment for the study population.

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