

# Perception and Awareness of Prosthodontic Rehabilitation among Jazan Population in the Southern Region of Saudi Arabia

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## Abstract

The Prosthodontic health status and Prosthodontic rehabilitation needs of Jazan local population in the southern region of Saudi Arabia were not well documented. This study evaluates the level of perception and awareness of a group of Jazan population towards Prosthodontic rehabilitation and the factors that prevent 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 eleven questions was designed and reasons for choosing or refusing treatments were measured using Likert scale. A survey of 467 randomly selected subjects was conducted among the patients and relatives reported to the College of Dentistry, Jazan University, Jazan. Collected data were statistically analysed using SPSS V.19 for descriptive statistics along with Chi-squared test at a significance level of  $p < 0.05$ .

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**Index terms**— knowledge; perception; prosthodontic treatment; awareness; survey; patient acceptance of health care; prosthetic replacements.

## 1 I. 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, perception, awareness, attitude, and behaviour of a group of Jazan population in the southern region of Saudi Arabia aged 21-91 years towards the options available for replacing missing teeth and the factors preventing them from taking treatment.

## 2 II. Materials and Methods

The present study was a questionnaire survey conducted at College of Dentistry, Jazan University, Jazan. The study samples of 467 subjects were randomly selected from patients in the Department of Prosthodontics. The sample population consists of 248 males and 219 females within an age range of 21 to 91 years. A self-designed questionnaire containing eleven questions was designed on perception 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. The questionnaire was made available both in English and Arabic languages. The dentists, dental technicians, and assistants were excluded from the study. Socio-demographic details including age, gender etc. was noted. A total of 500 questionnaire forms were distributed and 467 were returned back (response rate was 93.4%). Collected responses were tabulated.

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

### 3 Age:

Sex:

## 4 III. Results

The study sample consisted of 53.10% males (N=248) and 46.90% females (N=219) with a mean age of 56.48+11.92 years. Each question was analysed for the frequency and the relation between the gender difference was tabulated (Table ??).

Question 1: Awareness about missing teeth replacement: The results show that 95.93 % (N=448) of the study population including both males and females has the awareness that they have to replace the missing tooth. There was marginal statistically significant difference between the genders ( $P=0.05$ ).

Question 2: Knowledge about various treatment options: Out of the 467 individuals 87.79% (N=410), 42.83% (N=200), 36.40% (N=170) and 10.71% (N=50) 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: 100% (N=467) 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,  $P=0.7111$  (Table ??). Question 4: Position of tooth loss: There was marginal statistically significant difference between the genders ( $P=0.05$ ). Loss of posterior teeth (N=144) 32.73% is more when compared to the anterior teeth (N=95) 21.59% and combination of anterior and posterior teeth is the highest (N=201) 45.68% Question 5: The duration of missing teeth among the participant of the survey was 34.98 + 62.38 months for males and 28.11 + 35.04 months for females. There was no statistical difference between the genders  $P= 0.1629$ .

Question 6: Attitude towards prosthetic rehabilitation: Considering the attitude towards the replacement of the missing teeth with prosthesis 57.82% (N=270) 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 7: 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 complete denture i.e., 62.44 % (N=123/272), compared to 50.25% (N= 99/272) for removable partial denture and 25.38% (N= 50/272) for fixed partial denture. There were no patients who preferred to replace their missing teeth with implants.

Question 8: Reasons for not replacing the missing teeth: The main reason for not undergoing the prosthodontic replacement was inadequate knowledge (57.36%, N= 113), followed by lack of motivation, regarding the prosthetic replacements (24.37%, N=48) and the least were due to financial constraints (18.27%, N=36) and these observations were not statistically significant. Question 11: how did you know about the dental college: Out of the 467 participants 61.46% (N=287) came to know about the college from relatives and friends 24.20% (N=113). Few patients were referred by Dentists 10.92% (N=51) whereas media 3.43% (N=16) formed the least in patients knowing about the college. These observations were not statistically significant.  $P= 0.3352$ .

## 5 IV. 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, aesthetics, structural balance and for the comfort of an individual. With the loss of teeth, the above functions are impaired resulting in physical, physiological and 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 options among people living in and around Jazan prevents them from availing of treatment even though there are many Government setups 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). 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 inadequate knowledge. 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.

## 6 V. Conclusion

In conclusion complete dentures are associated with lower expected outcomes, while inadequate knowledge and lack of motivation are the major factors associated with the preferences for implant treatment for the study population.<sup>1</sup>



Figure 1: Question 9 :

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4. Shigli K, Angadi GS, Hebbal M (2007). Knowledge Fixed Partial Denture of prosthodontic treatment among denture-wearers Implant supported and non-denture-wearers attending a dental institute Q-8 If not replaced then why in India: a survey report. Gerodontology. 24(4): Financial Constraints 211-6. Inadequate Knowledge

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Year  
2016  
Year  
2016

Total Table : Distribution of samples by age groups and Characteristics Age groups >25 Q10 dental college where repla

25-34 Q-11 How did you know about the college  
Friends 35-  
44

Volume 45 Mean age SD age Sex Male Female Total Table : Item wise responses of respondents 386 82.66 56.

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Q2 The various types of replacement that they are aware of T  
Complete Denture Removable Partial Denture Q 1 Male Yes 242 %

No 97.58

Fixed Partial Denture 6 2.42

Implants Total 248 100.00

Q3 Do you have any missing teeth Chi-square=3.6852 P

Yes

No

Q 2

Total

Male

Q 4 If Yes Complete Denture

222

:

Others		
Total	Q-11	Male
Q10	Friends	65
Yes	Relatives	143
No	Dentist	31
Total	Media	9
	Total	248
Q-11		
Friends		
Relatives		

Dentist Table : Comparison of male and females in each item 31 12.50 20 9.13  
 Items Media Q 1 Yes No Total

Total

Q 2 Complete Denture Removable Partial Denture Fixed Partial Denture Implants Q3 i.e. missing teeth Yes

Back Both

Q5  
 Means  
 Std.Dev.

Q6  
 Yes  
 No  
 Total

Q-7  
 Complete Denture  
 Removable Partial Denture  
 Fixed Partial Denture  
 Implant supported

Q-8  
 Financial Constraints  
 Inadequate Knowledge



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