

AWARENESS ABOUT PROSTHODONTIC TREATMENT FOR MISSING NATURAL TEETH AMONG PATIENTS SEEN AT AFID

¹AZAD ALI AZAD

²SALMA MUHAMMADI

³AYESHA ASLAM

⁴SYED HAMMAD HASSAN

⁵SHOAIB RAHIM

ABSTRACT

Loss of teeth significantly impairs oral functions and masticatory efficiency. Due to lack of awareness about importance of prosthodontic replacement, mostly patients do not seek treatment immediately after tooth loss. Patients with different educational and socioeconomic background may have different reasons for not replacing teeth after extraction such as financial issues, lack of time and lack of motivation. The objective of this study was to determine the awareness level about prosthodontic treatment for missing natural teeth among patients seen at prosthodontic department of AFID in Rawalpindi. The study was carried out on 137 subjects over a period of almost six months. Based on the criteria of awareness defined in methodology, 19 patients (13.9%) had low awareness level, 89 (65%) had medium awareness level and 29 (21.2%) had high level of awareness. There was significant association of awareness level with gender ($p=0.009$), education ($p=0.00$) and occupation ($p=0.001$). It was concluded that patients visiting AFID have medium level of awareness about prosthodontic treatment options. Dentists were the most common source of information for the patients in terms of education about different treatment options available to replace the missing teeth.

Key Words: Awareness level, Prosthodontic treatment, missing teeth.

INTRODUCTION

Loss of teeth significantly impairs oral functions and masticatory efficiency.¹ Oral health related quality of life declines with compromised masticatory function due to unreplaced missing teeth.² Several factors affect the need or demand of prosthodontic replacement of missing natural teeth e.g. age, gender, socioeconomic status, educational level and appearance etc.¹ Due to lack of awareness about importance of prosthodontic replacement, mostly patients do not seek treatment immediately after tooth loss, even if replacement of missing teeth is strongly indicated. Financial constraints

are important determinants for seeking treatment and selecting a specific prosthodontic treatment option.³ In an Indian study, 65.1% of the general population exhibited awareness about prosthodontic treatment which was assessed by asking questions which were related to demographics, tooth replacement knowledge, attitude and awareness of different treatment options available for tooth replacement and the justification of selecting an option over another.⁴

Studies show that majority of patients are concerned with the replacement of missing anterior teeth more than posterior teeth. Aesthetics are given much more importance than function.⁴ Additionally patients are dissatisfied with removable partial dentures (RPD) for the replacement of missing teeth. Patients have been reported to prefer Fixed Partial Dentures (FPD) over RPD, regardless of the clinical scenario.⁵ Among the prosthodontic replacements, dental implants supported prostheses have the advantages of increased occlusal support, preservation of adjacent teeth and fixed nature of restoration. Therefore implant supported restoration is the treatment of choice for most patients.⁴ However, implants are not economically feasible for many patients, and the associated surgery is a major concern precluding treatment as expressed by the patients.⁵

¹ Dr Azad Ali Azad, BDS, MCPS, FCPS, HPE, Professor of Prosthodontics, Armed Forces Institute of Dentistry, Rawalpindi
Cell: 0321-5178242 E-mail: pakprosthodontist@hotmail.com

² Dr Salma Muhammadi, BDS, FCPS Resident Prosthodontics, Armed Forces Institute of Dentistry, Rawalpindi **For Correspondence:** House # 90, Street 7, Sector-C, Askari-14, Caltex Road, (Near Attock Oil Refinery) Rawalpindi Cell: 0333-5114755 Email: salma.muhammadi@yahoo.com

³ Dr Ayesha Aslam, BDS, MS Resident Prosthodontics, Armed Forces Institute of Dentistry, Rawalpindi

⁴ Dr Syed Hammad Hassan, BDS, FCPS, Assistant Professor of Prosthodontics, Armed Forces Institute of Dentistry, Rawalpindi

⁵ Dr Shoaib Rahim, FCPS Resident Prosthodontics, Armed Forces Institute of Dentistry, Rawalpindi

Received for Publication: February 25, 2016
Approved: March 12, 2016

Loss of teeth occurs gradually with time; therefore some individuals become adapted to missing teeth and do not feel the need for replacement. Patients with different educational and socioeconomic background may have different reasons for not replacing teeth after extraction such as financial issues, lack of time and lack of motivation.⁶ This study intends to explore the awareness level of local population and more specifically of patients visiting AFID about prosthodontic rehabilitation options. This would help educate the prosthodontic fraternity and the dental community thereby enabling more informed counselling and promotion of prosthodontic services in order to improve the oral health condition of patients with missing teeth.

METHODOLOGY

The study was carried out at the prosthodontic department of AFID in Rawalpindi and spanned over a period of almost six months. Non-probability consecutive sampling was done for this cross sectional study. WHO sample size calculator was employed to determine the sample size of 137 by keeping the Level of confidence at 95%, anticipated population proportion at 65.1%⁴ and absolute precision requirement at 8%.

Male and female patients in the age bracket of 20 to 65 years and no prior prosthodontic treatment experience were included in the study with at least one missing tooth (excluding the 3rd molars). Completely edentulous patients or partially edentulous patients with compromised remaining natural teeth requiring extraction due to periodontal reasons or any other reason were excluded. Mentally and physically handicapped patients and those with congenital or acquired dento-alveolar defects were also excluded.

An approval was sought from the ethical committee of AFID. All patients with missing teeth presenting to OPD of Prosthodontic department at AFID were referred to concerned researchers within the Prosthodontic department. After taking informed consent from the patients, a detailed history was taken followed up by a complete oral examination. On the basis of history and clinical evaluation the patients were screened in accordance with the inclusion and exclusion criteria.

Patients were interviewed by the designated researchers for answering questions regarding the awareness about prosthodontic treatment for missing natural teeth. The questions focused on the willingness to replace the missing teeth: the preferred methods of choice for replacement, and the importance of oral hygiene maintenance of prosthesis. Patient's level of awareness was assessed by asking 15 questions from each patient regarding general considerations for prosthodontic rehabilitation and different options available for teeth replacement. An affirmative answer to the

questions was regarded as correct and a negative response was considered as incorrect. Each correct answer was scored 1 and each incorrect answer was scored 0. Total aggregate score of all questions was 15. In the end maximum score a patient got out of 15 was calculated. Awareness was assessed on a scale, designating the patients having high level (10 or above), medium level (5 to 10), low level (below 5) of awareness. Data was analyzed using SPSS version 19.

RESULTS

A total of 137 patients were included in the study to determine the level of awareness about prosthodontic treatment among patients visiting AFID, Rawalpindi. Patients ranged in age from 20-65 years with mean age 44.12 with S.D. of ± 11.66 years. Gender distribution is depicted in Fig 1. Educational and employment status along with awareness levels about Prosthodontic treatment modalities are elicited in percentages in Fig 2. The main sources of information for the patients from which the patients gained awareness about the treatment options are also elicited in Fig 3.

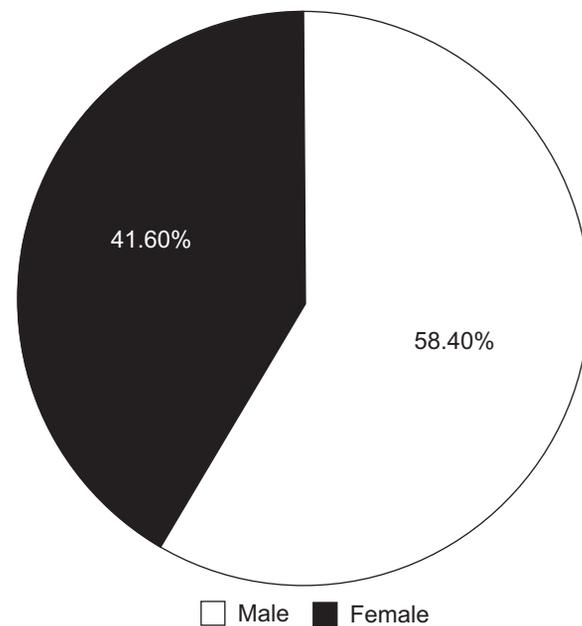


Fig 1: Gender Distribution of the Sample Population

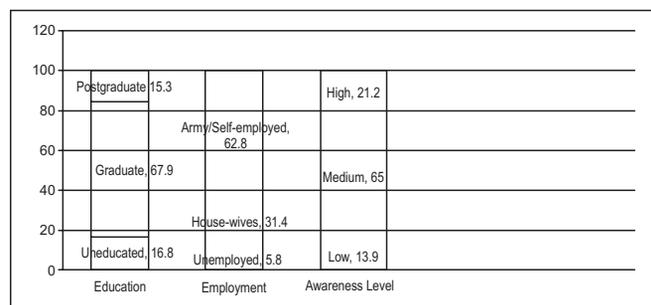


Fig 2: Educational, Employment and Awareness Status of the Sample Population

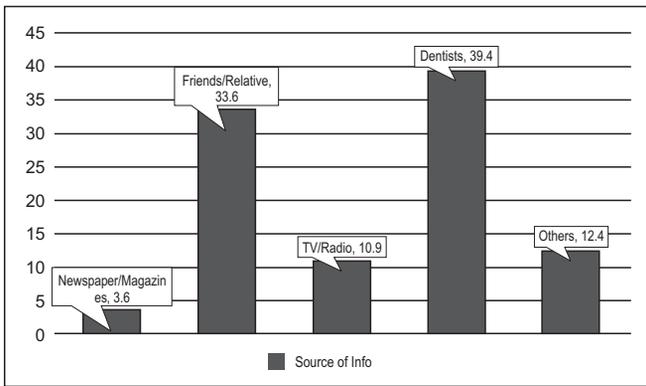


Fig 3: Sources of Information for the patients about Prosthodontic Treatment Options

Based on the criteria of awareness defined in methodology, 19 patients (13.9%) had low awareness level, 89 (65%) had medium awareness level, and 29 (21.2%) had high level of awareness. Using Chi-square test there was significant association of awareness level with gender ($p=0.009$), education ($p=0.00$) and occupation ($p=0.001$).

DISCUSSION

In a developing nation like our country Pakistan, where there is reduced literacy rate and lower socioeconomic status of most people, an attempt was made to know the awareness level of patients visiting AFID about the prosthodontic treatment for missing natural teeth. Patients rarely visit dental offices for replacement of a few missing teeth unless and until they face chewing difficulties or have esthetic concerns.

Majority of patients who participated in this study were educated, about 67.91% held graduate and 15.3% had postgraduate qualifications with only 16.8% patients being uneducated. High level of education may be one of the main reasons that majority of our sample population i.e 65% had medium level of awareness. 21.2% had high level of awareness with only 13.9% having low level of awareness as per the criteria defined. This is in contrast to another study conducted in India by Satpathy et al, who reported that 15.9% of their sample had awareness of dental implant treatment, which is quite low.⁷ 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 conducted on this topic by Zimmer et al which investigated public awareness about dental implants in 120 American citizens and reported awareness level as high as 77%.⁹

Another study conducted on 1000 Austrian individuals by Pommer et al also reports awareness level about dental implants to be 79%.¹⁰ While in a Norwegian

study conducted in 2001, the survey report shows that dental awareness level was about 70%.¹¹ The higher level of awareness in the western populations as indicated by the above mentioned studies are reflective of the better dental and prosthodontic awareness that exists among those populations owing to more routine dental consultations and educative counselling during these consultations.

This survey shows that most patients learnt about dental implants from their dentists, followed by source of information from friends and relatives, then electronic media, then print media, which differs slightly from the results of the survey conducted in India, by Satpathy et al, in which the most common source of information about dental implants was from dentists, however, this was followed by print and electronic media.

Studies by Berge¹¹, Best¹² and Zimmer et al¹³ reported media to be the main source of information. Our survey results reveal that patients in our country get to know about the dental treatment modalities mostly from our dentists after visiting dental office, whereas in western countries media plays a substantial role in educating general public and creating awareness about dental implants and other prosthodontic treatment options.⁵

The limitation in this study is that it was conducted only on patients visiting AFID and was not representative of the general population and hence the results cannot be generalized to the whole population. Other weakness in this study is that it has a small sample size of 137.

This study highlights the significant role that the dentists play in the spread of awareness about prosthodontic treatment and they prove a good source of information which facilitates further spread of information to patient's friends and relatives. It also points out the role that media can play in educating the public about dental treatment options for missing teeth.

CONCLUSION

Within the limitations of this study, patients visiting AFID have medium level of awareness about prosthodontic treatment options. Dentists were the most common source of information for the patients in terms of education about different treatment options available to replace the missing teeth. Media can be a useful tool for educating the general masses regarding dental and Prosthodontic rehabilitation.

REFERENCES

- 1 Khan AU, Ghani F. Factors influencing the type of prosthetic restoration for partially dentate adults. *J Postgrad Med Inst* 2010; 24: 13-21.

- 2 Idrees N, Ghani F. Demands, needs, expectations, patterns and reasons among patients for treatment with fixed dental prosthesis. *J Postgrad Med Inst* 2008; 22: 313-19.
- 3 Teofilo LT, Leles CR. Patients' self-perceived impacts and prosthodontic needs at the time and after tooth loss. *Braz Dent J* 2007; 18: 91-96.
- 4 Mukatash GN, Al-Rousan M, Al-Sakarna B. Needs and demands of prosthetic treatment among two groups of individuals. *Indian J Dent Res* 2010; 21: 564-67.
- 5 Satpathy A, Porwal A, Bhattacharya A, Sahu PK. Patient awareness, and perceived cost of dental implants as a treatment modality for replacement of missing teeth: a survey in Bhubaneswar and Cuttack. *Int J Pub Health Dent* 2011; 2: 1-7.
- 6 Shigli K, Hebbal M, Angadi GS. Attitudes towards replacement of teeth among patients at the institute of dental sciences, Belgium, *J Dent Educ* 2007; 71: 1467-75.
- 7 Al-Quran FA, Al-Ghalayini RF, Al-Zu'bi BN. Single-tooth replacement: factors affecting different prosthetic treatment modalities. *BMC Oral Health*. 2011 Dec 21; 11: 34. doi: 10.1186/1472-6831-11-34.
- 8 Parlani S, Tripathi A, Singh SV. Increasing the prosthodontic awareness of an aging Indian rural population. *Indian J Dent Res*. 2011 May-Jun; 22(3): 367-70. doi: 10.4103/0970-9290.87054.
- 9 Eachempati P, Shenoy VK, Jain N, Singh S. Prosthodontic status and needs of elderly institutionalized residents in Mangalore: A prospective study. *Indian J Dent Res*. 2013 May-Jun; 24(3): 284-88. doi: 10.4103/0970-9290.117987.
- 10 Furuta M, Yamashita Y. Oral Health and Swallowing Problems. *Curr Phys Med Rehabil Reports*. 2013 Sep 15; 1: 216-22.

1 Azad Ali Azad:	Research idea + Manuscript writing.
2 Salma Muhammadi:	Data Collection + Manuscript Writing.
3 Ayesha Aslam:	Statistical Analysis.
4 Syed Hammad Hassan Rizvi:	Review + Editing + Proof reading.
5 Shoaib Rahim:	Compilation of results.