

Knowledge and Attitude towards Prosthodontic Rehabilitation and Utilization of Dental Services by Central India Population of Jabalpur City, India

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Abstract

Introduction: Impairment of oral functions and masticatory efficiency is a result of a loss of teeth. 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 motivation. **Materials and Methodology:** A cross sectional questionnaire based survey was conducted at Hitkarini Dental College and Hospital, Jabalpur (Madhya Pradesh) and surrounding population. The total study samples were 480. The subjects were randomly selected from patients reporting to the institute for teeth replacement. The sample population consisted of 278 males and 202 females. A self-designed questionnaire containing total 14 questions, out of which 8 were knowledge based and remaining 6 were attitude based questions was used for obtaining data. The response to questionnaire was ranked according to Likert Scale. The collected data was put into SPSS software to be analyzed. **Results:** As the result indicated among the study population reported that 267 participants in the study population has insufficient knowledge which included men and women and 213 had sufficient knowledge about the various treatment options while 58.3% population had positive attitude for replacement of missing teeth and 74.8% population feels that oral hygiene maintenance for artificial prosthesis is must. **Conclusion:** From the analysis, it has come to the fore that the knowledge level might vary among the subjects based on demographic factors like income, education, gender and age. However, their attitude towards dental and prosthetic treatment is positive especially in cases involving no surgical procedure as it enhances their appearance and functionality. But positive attitude towards treatment does not amount to opting for treatment.

Keywords: Knowledge; Attitude; Awareness; Missing teeth; Removable Prosthesis; Fixed Prosthesis; Implants; Maxillofacial prostheses

Introduction

Teeth play a vital role in the general wellness of an individual. Loss of teeth not only adversely affects the body physiology but also disturbs the psychology of the individual. This is directly related to the acceptance of the artificial prostheses by the patient.^[1]

Patient acceptance and adaptation to a new dental prosthesis depends on various factors categorized under anatomical, physiological, psychological and or prosthodontic factors. Above all it depends on the attitude of the patients towards prosthetic treatment.^[2,3]

Prosthetic treatment varies widely from replacement of missing teeth in a healthy incomplete dentition to complete rehabilitation of badly damaged teeth to functional form. Multiple prosthetic options are available for the patient to restore lost teeth that include removable or fixed partial denture, complete dentures, implant supported processes and over-dentures.^[4]

According to a survey conducted on associated approach in prosthodontic treatment decision making, Leles CR et al. have

concluded that in contemporary classical clinical practice, patients are actively participating in discussing and deciding their prosthetic treatment needs by stating their expectation and constraints.^[5]

The three main factors that determine the acceptability and success of any type of prosthetic treatments are comfort, function and aesthetic. Mechanical and biological factors determine comfort and function. Patient's acceptance of aesthetic aspect is determined by social and cultural influences and attitude and belief of an individual.^[6]

Since, emphasis is being placed on patient mediated concerns in prosthetic treatment planning, understanding patient's

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How to Cite this Article: Gupta S, et al. Knowledge and Attitude towards Prosthodontic Rehabilitation and Utilization of Dental Services by Central India Population of Jabalpur City, India. Ann Med Health Sci Res. 2018;8: 12-15

knowledge, attitude towards prosthetic replacement prior to receiving treatment is the necessity.^[7,8] This could be a prospective tool in predicting satisfaction with new prosthesis given.^[9]

Decision on getting dental prosthetic treatment done has also been linked to demographic characteristics such as gender, age, education, economic condition and interest.^[10]

Yusuf and Fakiha had evaluated the awareness and attitudes of patients towards prosthetic rehabilitation of missing teeth at the university dental Hospital, Riyadh, Kingdom of Saudi Arab. They concluded that 53.1% of the population surveyed did not get their teeth replaced. They have emphasized on the need of motivation and education of patients leading them to make the decision favourably.^[11]

Shigli K, have surveyed the attitude towards replacement of teeth among patient at Institutes of Dental sciences, Belgaum, India and concluded that majority of study subjects were only aware of mastication function performed by teeth. Most of the studies on knowledge and attitude of patients towards replacement of teeth in India are based on geographic locations and cannot be generalized.^[8]

Therefore, the purpose of the study was to survey knowledge and attitude towards prosthodontics rehabilitation and utilization of dental services by patients who reported to Hitkarini Dental College Hospital located in Central India of the state Madhya Pradesh.

Materials and Methods

This study was a cross sectional questionnaire based survey conducted at Hitkarini Dental College and Hospital, Jabalpur (HDCH), Madhya Pradesh. The total study samples were 480 (n=480). The subjects were randomly selected from patients reporting to the institute for replacement of missing teeth from month of January 2017 to March 2017. A self-designed questionnaire containing total 14 questions, out of which 8 were knowledge based and remaining 6 were attitude based questions was used for data collection [Table 1]. Socio-demographic details of the subjects were also recorded in the questionnaire. Informed consent was taken from every person participating in the survey. Data analysis was done using SPSS software after ranking the response from the questionnaire using Likert's scale.

Table 1: Questionnaire used in the survey.

- 1 Replacement of missing teeth is important for?
- 2 Preferred mode of replacement of missing teeth?
- 3 Do you know that there is a dental college in your city (Hitkarini Dental College/Hospital)?
- 4 Do you know about ear prosthesis?
- 5 Do you know about eye prosthesis?
- 6 Do you know about finger prosthesis?
- 7 Do you know about limb prosthesis?
- 8 Do you know about facial prosthesis?
- 9 Do you feel that there is need for replacing missing teeth?
- 10 Do you feel removable is better mode of replacement of missing teeth?

- 11 Do you think fixed is a better mode of replacement of missing teeth?
- 12 Do you think implant is a better mode of replacement of missing teeth?
- 13 Do you think missing body parts should be replaced?
- 14 Do you think oral hygiene maintenance for prosthesis is must like natural teeth?

Results

The study population consisted of 57.97% males and 42.1% females. General characteristics of the study group are shown in Table 2.

Table 2: General characteristics of the study group.

Characteristics	Category	n	Percentage
Gender	Male	278	57.9
	Female	202	42.1
Age	18-30 years	53	11.04
	31-40 Years	143	29.79
	41-50 Yrs	205	42.71
	>50 yrs	79	16.46
Education	Illiterate	94	19.58
	Primary School	193	40.21
	High School	121	25.21
	Graduate	72	15
Income Scale	< 5000	180	37.5
	10000-15000	80	16.66
	15000-25000	59	12.3
	>25000	161	33.54

Analysis of the knowledge based answers showed 55.7% had sufficient and 44% had insufficient knowledge regarding the treatment options for missing teeth [Figure 1]. The attitude profile of the patient depicted that 58.35% had positive attitude towards replacing missing teeth. Out of the surveyed population 20.2% felt that removable was the better mode of replacing the missing teeth. The study population showed 42.5% had positive attitude towards fixed prostheses and consider as a better mode of replacement of missing teeth. Attitude towards implants as the mode of replacement of missing teeth showed 15.6% positivity. Surveyed population showed 33% positivity towards replacement of missing body parts. Answers on maintenance of hygiene towards prostheses showed 74.8% positivity [Figure 2].

Discussion

It has already been discussed about the importance of teeth for general health and well-being of an individual. So an appreciation of need for replacement of lost teeth which depend upon knowledge and attitude of the individual about types and modes of artificial teeth replacement is required to be known.^[7,12]

Epidemiological data on knowledge and attitude towards prosthetic replacement of lost teeth in Central India region in the state of Madhya Pradesh was lacking. Therefore an attempt was made to survey the population of Jabalpur, reporting to the Institute of HDCH, Jabalpur Madhya Pradesh with chief complaint of replacement of lost teeth.

Majority of the patients belonged to the age group of 41-50

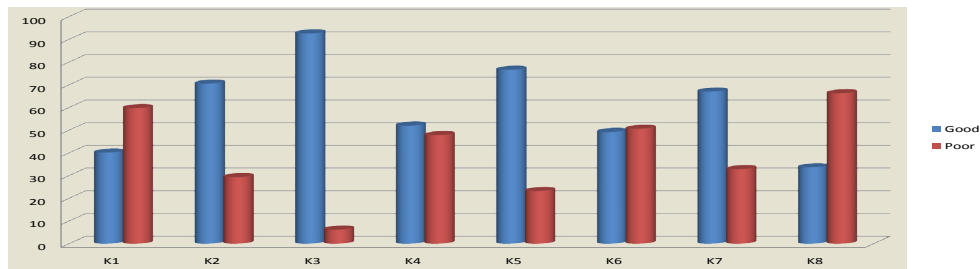


Figure 1: Percentage distribution of knowledge based questions.

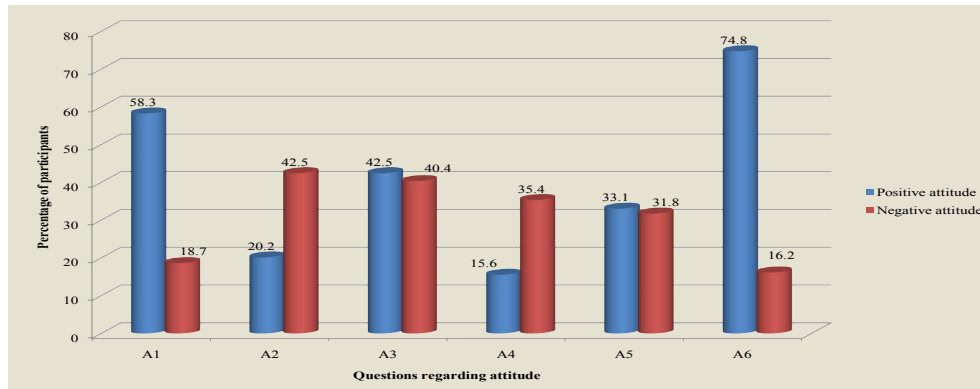


Figure 2: Percentage distribution of attitude based questions.

years (42.1%) while only 16.5% patients were above 50 years. This finding was similar to that in a survey done by Shingli K. The probable cause as described by the authors is lack of information, mobility problems and misconception about the value of dental care among geriatric patients. [13]

Pallegada and Ekanayake in their study have concluded that changed perception associated with increased age such as feeling of being too old to adapt to dentures & artificial teeth and lack of interest in aesthetics can be a contributing factor in unwillingness to restore lost teeth at an old-age. [15]

In the present survey the knowledge profile of the study population was insufficient with respect to the placement of lost teeth. The probable reason could be that 40.21% part of the population was just primary educated. This was similar to a study Marcus et al. who found that lack of education is correlated to lack of awareness about importance of oral health and the consequences of neglect appear to constitute a barrier in using dental health care services. [14]

Attitude profile of the subjects, in the present study showed that 58.3% had positive attitude towards replacement of missing teeth. This was similar to the result obtained by Nirmal et al, who have concluded in their survey that the participants had knowledge about needs for teeth replacement. Majority did not undergo treatment mainly due to financial constraints. [15]

The present survey results showed that 40.5% of subjects showed positive attitude towards fixed prosthesis as mode of replacement of teeth and only 20.1% felt removable as a better option. A study done by Al-Quran et al, also confirms our results. [16] Similar survey done in Saudi Arabia highlighted that around 50% of the sample preferred removable partial denture while 25% preferred fixed partial denture. This result was opposite to our findings. [17]

Out of the total subjects only 15.6% considered implants as a better mode of replacement of teeth. It supported earlier study report with similar outcome. [16,17] A survey conducted in Peradeniya, Sri Lanka reported that 32% participants out of 425 total subjects surveyed were aware of implants as a mode of replacement. This was a higher percentage reported as compared to multiple studies done on Asian population as described in the study. The authors have mentioned that this disparity could be attributed to higher standards of health and education in the country as compared to neighbouring countries in the region. [18] In the present study 33.1% participants had positive attitude towards replacement of missing body parts.

Answers related to hygiene maintenance of artificial teeth revealed that 74.8% showed positive attitude and felt that maintenance of prosthesis hygiene is very important. Similar results were reported by Amjad et al. from Pakistan. The authors mentioned that there was a positive response when asked regarding the maintenance of prosthesis (97.5%). [19]

Lack of awareness of various prosthodontic treatment options amongst patients prevented them from utilising treatment. Dental camps and prosthodontic outreach programmes are possible solution to change of attitude, to spread awareness & provide knowledge about ways and means of artificial teeth replacement as concluded in a study by Menezes M. [20]

There are a few limitations of the study namely limited sample size and the study was performed in an institutional set up where prosthetic treatment charges are different as compared to private dental care centres.

Future Scope

Similar survey can be conducted over large scale of population

hospital and clinical sectors. Similar survey could be conducted on knowledge and attitude towards implants as mode of replacement of teeth as the attitude factor towards dental implant treatment was unfavourable in the present study.

Conclusion

Within the limitation of the study, we could conclude that patients preferred fixed over removable mode of replacement of teeth and showed positive attitude towards prosthesis hygiene maintenance. Major population was aware of maxillofacial parts being prosthetically replaced but knowledge about prosthetic replacement of teeth was below average. Patient had unfavorable attitude towards implants as a mode of replacement of teeth.

Conflict of Interest

All authors disclose that there was no conflict of interest.

Acknowledgement

The author would like to thank all the patients who participated in the survey.

References

- Allen PF, McMillan AS, Walshaw D. A patient-based assessment of implant-stabilized and conventional complete dentures. *Journal of Prosthetic Dentistry*. 2001;85:141-147.
- Balsi TJ, Wolfinger GJ. Patient attitude before and after dental implant rehabilitation. *Implant Dent*. 1994;3:106-109.
- Chowdhary R, Mankani N, Chandraker NK. Awareness of dental implants as a treatment choice in urban Indian population. *Int. J. Oral Maxillofacial Implant*. 2010;25:305-308.
- Zarb GA, Bergman B, Clayton JA, Mocky HF. Prosthodontic treatment for partial edentulous patients. United States of America: Mosby; 1978; 56-58.
- Leles CR, Freire Mdo C. A socio-dental approach in prosthodontic treatment & decision making. *J. Appl. Oral Sci*. 2004;12:127-132.
- Conny DJ, Tedesco LA, Brewer JD, Abino JE. Changes of attitude in fixed prosthodontic patients. *J. Prosthet. Dent*. 1985;53:451-454.
- Akeel R. Attitudes of Saudi male patients towards the replacement of teeth. *J. Prosthet. Dent*. 2003;90:571-577.
- Shigli K, Hebbal M, Angadi GS. Attitude towards replacement of teeth amongst patients at the Institute of Dental Sciences, Belgaum, India. *J Dent Edu*. 2007;71:1467-1475.
- VanWass MAJ. Determinants of dissatisfaction with dentures: A multiple regressive analysis. *J. Prosthet. Dent*. 1990;64:569-572.
- Mishra D, Singh HP, Kuppuswamy S. Socioeconomic status scale - A revision. *Indian J. Pediatr*. 2003;70:273-274.
- Yosuef A, Fakiha Z. Awareness and attitudes of patients towards prosthetic rehabilitation of missing teeth at University Dental Hospital. *Int J of Dent Res*. 2017;7:17638-17641.
- Maupome G, Mac Entee MI. Prosthodontic profiles relating to economic status, social status, social network and social support in an elderly population living independently in Canada. *J. Prosthet. Dent*. 1998;80:598-604.
- Pallegedara C, Ekanayake L. Tooth loss, the wearing of dentures and associated factors in Sri Lankan older individuals. *Gerodontology* 2005;22:193-199
- Marcus PA, Joshi A, Jones JA, Morgano SM. Complete edentulism and denture use in elderly in New England. *J. Prosthet. Dent*. 1996;76:260-266.
- Nirmal R, Naveen R, Sanjay J, Mathew T, Roshan U. Knowledge, attitude towards prosthodontic rehabilitation and utilization of denture service among Sonagadh and Amargadh population. *J. Dent. Med. Sci*. 2014;4:1-6.
- Al Quaran FA, Al-Ghalayini RF, Al-Zubi BN. Single tooth replacement and factors affecting different prosthetic treatment modalities. *BMC oral health* 2011;11:34.
- Reddy RN, Elamin EL, Vempalli S, Faud AL, Sanabani F. Perception and awareness of Prosthodontic rehabilitation among Jazan population in the southern region of Saudi Arabia. *Glob. J. Med. Res*. 2016;16:1-8.
- Jayasinghe RM, Perera J, Jayasinghe V, Thilakumara IP, Rasnayaka S, Shiraz MH, et al. Awareness, attitudes, need and demand on replacement of missing teeth among a group of partially dentate patients attending a University Dental Hospital. *BMC research notes*. 2017;10:334.
- Amjad F, Aziz S. Trends, awareness and attitude of patients towards replacement of missing teeth at University College of Dentistry. *Pakistan Oral & Dental Journal*. 2014;34:190-193.
- Menezes M, Aras M. Prosthodontic awareness and fulfilment of prosthodontic need in rural areas of Goa. *J Indian Dent Ass*. 2009;368-373.