

Original Research Article

Awareness, Knowledge and Reluctance Regarding Dental Implants

Dr. Maria Sohail¹, Dr. Hiba Aslam², Dr. Naseer Ahmed³, Dr. Saba Faruqui^{4*}, Dr. Afsheen Maqsood⁵, Dr. Mohammad Asif Ali Ansari⁶ and Dr. Hudebia Allah Buksh⁷

¹House Officer, Altamash Institute of Dental Medicine, Pakistan.

²House Officer, Altamash Institute of Dental Medicine, Pakistan.

³Assistant Professor, Head of Department of Prosthodontics, Altamash Institute of Dental Medicine, Pakistan.

⁴Altamash Institute of Dental Medicine, Pakistan

⁵Assistant Professor, Dow International Dental College, Dow University of Health Sciences, Pakistan.

⁶Registrar, Oral and Maxillofacial Surgeon, Al Kharj Armed Forces Hospital, Kingdom of Saudia Arabia.

⁷Department of Medical Education. College of Physicians and Surgeons, Pakistan.

Accepted, 6th October, 2016.

Background: There is a lack of information regarding awareness and knowledge of dental implants within the local population. **Materials and Methods:** A total of 100 subjects participated in this study. It was a questionnaire-based study. Verbal consent was taken from each patient. SPSS -17 version was used for data analysis. **Results:** Out of the 100, only 28 (28%) patients were aware of dental implant which is quite low. Dental professional was the prime source provider (15%). High cost is one of the main reasons which prevent subjects from choosing dental implant as a treatment modality. **Conclusion:** More than half of the subjects have no information about dental implant. It explains that dental professionals need to plan some awareness programs and motivate patients to opt this treatment for replacing missing teeth.

Keywords: Dental implant, Awareness, High cost.

INTRODUCTION

The loss of teeth leading to edentulism was once accepted in society as an inevitable part of the ageing process[1]. The loss of one or more natural teeth often results in disability, deterioration of the functional, emotional and social status of an individual[2,5]. Davis and Fiske et al studies indicate that edentulism has a negative effect on patient's quality of life therefore some patients consider edentulism as disfigurement[3,4].

Studies in the past illustrate that conventional methods of dental prosthesis like removable dentures were unable to completely satisfy patient demands[3,4,6]. In fact a smaller group of patients were unable to accept removable prosthesis at all due to anatomical, psychological and prosthodontics factors[7].

A new method of restoration was introduced a few decades ago; dental implant has come into focus as a treatment option that provides better retention, stability, functional efficiency, quality of life and long-term results[8].

Several studies proved varied level of awareness of dental implant among different countries. A survey done in 1992 revealed that Americans showed positive attitude towards

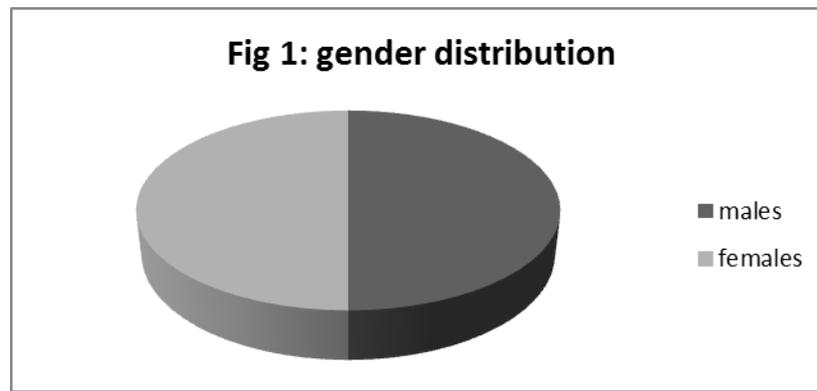
dental implants[9], while surveys done in Australia, Finland and Austria showed 40-60% were aware of dental implants[10-12]. These studies conclude that patients were aware of dental implants.

Many patients are unwilling to try dental implants due to financial instability as it is costly, therefore show reluctance[7]. Older individuals show less interest in dental implants as they are well accustomed to their conventional dentures[13].

To the authors' knowledge, there are no data available in the literature which evaluates the patient's awareness and knowledge toward dental implants in local Pakistan. Hence, the aim of this survey was to assess the awareness, sources and reasons for reluctances about dental implants.

MATERIALS AND METHODS

This cross-sectional study was conducted over a period of six months on one hundred patients who came to Prosthodontics department at Altamash Institute of Dental Medicine Karachi Pakistan.

**Table 1:** Descriptive statistics of age

	N	Minimum	Maximum	Mean	Std. Deviation
Age	100	17.00	78.00	40.95	14.44

Table 2: Implants knowledge according to age

		Implants knowledge		Total
		Yes	No	
gender	male	9	41	50
	female	19	31	50
Total		28	72	100

Table 3: Dental implant information provider

Source	Frequency	Percent
Dentist	15	15.0
Friends	7	7.0
Media	4	4.0
Others	2	2.0
No one	72	72.0
Total	100	100.0

Table 4: Reasons for implant reluctance

Factors	Frequency	Percent
Financial concern	9	9.0
Awareness	2	2.0
Anxiety	6	6.0
Others	11	11.0
No reason	72	72.0
Total	100	100.0

Table 5: Expectations from implant

	Frequency	Percent
esthetics	8	8.0
phonetics	2	2.0
mastication	17	17.0
others	72	72.0
Total	100	100

Table 6: Implant life expectancy

	Frequency	Percent
1-10	7	7.0
10-20	12	12.0
>25	5	5.0
Dont know	4	4.0
No response	72	72.0
Total	100	100.0

A standardized questionnaire with seven multiple choice questions was prepared, which included awareness and first source of information about dental implants. Patients were also asked about their reluctance towards dental implants, their choice of dental implants over removable denture and any previous experience with dental implants and its successfulness as well as life expectancy and the outcome they expect from dental implants. Verbal consent was taken from each patient.

Patients who were willing to participate, more than seventeen years old and both male and female were included in this study. Mentally handicapped and unwilling to give consent were excluded from the study. The data entered was finally analyzed in the SPSS version 17.0 software for statistical analysis.

RESULTS

A total of 100 patients participated. Gender distribution can be seen in Fig 1. Majority of subjects (%) were under 40 years of age. Table 1 describes descriptive statistics of age. Table 2 presents implant knowledge in terms of gender, in total only 28 (28%) patients (19% females and 9% males) were aware of dental implant as a treatment option.

Table 3 shows the percentages of the preferred sources of information about dental implants as ranked by the questioned subjects, 72% patients were never informed about dental implant. Factors which create hindrance for implant treatment are listed in table 4. Table 5 represents patient expectations from dental implant treatment.

DISCUSSION

The present investigation gives information about subject's knowledge, expectation, source of information and reasons for reluctance related to dental implant as a treatment option for replacing missing teeth, in a selected sample of local dental patients.

Around one million implants are inserted each year, worldwide[14]. In the present study, only 28% subjects were aware of dental implant which is quite low. However, Sulieman Al-Johany et al, Tepper J et al and Pommer B et al studies reported 66.4%, 72% and 79% respectively[12,15,20]. This considerable dissimilarity might be due to low socioeconomic status of the study population.

This survey noticed that the main sources of information about dental implants are dentist (15%), same findings were found in study held in 2013, where dental professionals (63.2%) were main source[16]. Other reports indicate media and relatives as a prime information provider[9,12,15].

When asked for reasons regarding reluctance by participants to dental implant treatment, a large part of the population was not taking it for no reason (72%). This may be as a result of fear of trying new treatment option as they are

not properly aware of this option. High cost, fears of pain, complications are often listed factors which prevent subjects from choosing dental implants[17,18,19].

Patient's main expectation from implant treatment is mastication (17%) satisfaction followed by esthetics (8%). Allen PM et al survey reports esthetics as a major expectation from implant treatment[21].

When patients were asked about their expectation of life span of a dental implant, around 12% of the patients expected the life span to be within 20 years. Around 28% of Japanese subjects believed their implants would last forever[22]. For such unrealistic expectation the need for patient education arises[12].

Within the limitations of study, only 28 (28%) subjects were aware of dental implant treatment as a tooth replacement option which indicates low awareness among the public and only 15 % dentist were information providers which clearly represents the lack of efforts by dentists and the governing bodies concerning taking necessary steps for creating awareness amongst the people.

CONCLUSION

In conclusion majority of patients are unaware of implant treatment modality for replacing missing teeth. Dental professionals should be more informative, health care workers should plan momentous programs to improve awareness. Proper dental education is necessary for developing positive attitude among population regarding dental implants. The survey underlines the need for providing correct information through various means to the patients to improve awareness about this treatment modality.

REFERENCES

1. Ellis JS, Levine A, Bedos C, Mojon P, Rosberger Z, Feine J, Thomason JM. Refusal of implant supported mandibular overdentures by elderly patients. *Gerodontology*. 2011 Mar 1;28(1):62-8.
2. Inukai M, Baba K, John MT, and Igarashi Y. Impact of Denture Quality on OHRQoL. *J Dent Res* 2008; 87: 736-39.
3. Davis DM. The shift in the therapeutic paradigm: osseointegration. *J Prosthet Dent* 1998; 79: 37-42.
4. Fiske J, Davis DM, Frances C et al. The emotional effects of tooth loss in edentulous people. *Br Dent J* 1998; 184: 90-93. discussion 79.
5. Allen PF, McMillan AS. A patient-based assessment of implant-stabilized and conventional complete dentures. *J Prosthet Dent* 2001; 85:141-147.
6. MacEntee MI, Hole R, Stolar E. The significance of the mouth in old age. *Soc Sci Med* 1997; 45: 1449-1458.
7. Balsi TJ, Wolfinger GJ, Hernandez RE. patient attitude before and after dental implant rehabilitation. *Implant dent* 1994;3:106-9.
8. Zitzmann NU, Sendi P, Marinello CP. An economic evaluation of implant treatment in edentulous patients-preliminary results. *Int J Prosthodont* 2005;18(1):20-7.

9. Zimmer CM, Zimmer WM, Williams J, Liesener J. Public awareness and acceptance of dental implants. *International Journal of Oral & Maxillofacial Implants*. 1992 Jun 1;7(2).
10. Salonen, M.A. Assessment of states of dentures and interest in implant-retained prosthetic treatment in 55-year-old edentulous Finns. *Community Dent. Oral Epidemiol*. 1994; 22 (2), 130–135.
11. Best, H.A. Awareness and needs of dental implants by patients in New South Wales. *Aust. Prosthodont. J*.1993; 7, 9–12.
12. Tepper, G., Haas, R., Mailath, G., Teller, C., Zechner, W., Watzak G., et al. Representative marketing-oriented study on implants in the Austrian population. I. Level of information, sources of information and need for patient information. *Clin. Oral Implants Res*. 2003; 14 (5), 621–633.
13. Bhat AM, Prasad KD, Sharma D, Hegde R. Attitude toward desire for implant treatment in south coastal Karnataka population: A short-term epidemiological survey. *International Journal of Oral Implantology and Clinical Research*. 2012 May 1;3(2):63-6.
14. Pommer B, Zechner W, Watzak G, Ulm C, Watzek G, Tepper G. Progress and trends in patients' mindset on dental implants. I: level of information, sources of information and need for patient information. *Clin Oral Implants Res* 2011;22(2):223-9.
15. Al-Johany S, Al Zoman HA, Al Juhaini M, Al Refeai M. Dental patients' awareness and knowledge in using dental implants as an option in replacing missing teeth: A survey in Riyadh, Saudi Arabia. *The Saudi dental journal*. 2010 Oct 31;22(4):183-8.
16. Saha A, Dutta S, Vijaya V, Rajnikant N. Awareness among patients regarding Implants as a treatment option for replacement of missing teeth in Chattisgarh. *Journal of International Oral Health*. 2013 Sep 1;5(5):48.
17. Kaurani P, Kaurani M. Awareness of dental implants as a treatment modality amongst people residing in Jaipur (Rajasthan). *J Clin Diagn Res*. 2010 Dec;4:3622-6.
18. Kent G. Effects of osseointegrated implants on psychological and social well-being: a literature review. *The Journal of prosthetic dentistry*. 1992 Sep 30;68(3):515-8.
19. Ellis JS, Levine A, Bedos C, Mojon P, Rosberger Z, Feine J, Thomason JM. Refusal of implant supported mandibular overdentures by elderly patients. *Gerodontology*. 2011 Mar 1;28(1):62-8.
20. Pommer B, Zechner W, Watzak G, Ulm C, Watzek G, Tepper G. Progress and trends in patients' mindset on dental implants. I: level of information, sources of information and need for patient information. *Clin Oral Implants Res*.2011;22(2):223-9.
21. Allen PF, McMillan AS, Walshaw D. Patient expectations of oral implant-retained prostheses in a UK dental hospital. *British dental journal*. 1999 Jan 23;186(2):80-4.
22. Akagawa Y, Rachi Y, Matsumoto T, Tsuru H. Attitudes of removable denture patients toward dental implants. *J Prosthet Dent*. 1988; 60(3):362-4.