

# International Journal of Dentistry and Oral Science (IJDOS) ISSN: 2377-8075

# **Dental Implant Awareness Among Patients**

Research Article

Edala Venkata Gana Karthik<sup>1</sup>, Marian Anand Bennis<sup>2</sup>, Dhanraj Ganapathy<sup>3\*</sup>

- <sup>1</sup> Graduate Student, Department of Prosthodontics, Saveetha Dental college and Hospitals, Saveetha Institute of medical and Technical Sciences, Saveetha University, Chennai, India.
- <sup>2</sup> Reader ,Department of Prosthodontics, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences, Saveetha University, 162, Poonamallee High Road, Chennai 600077, Tamil Nadu, India.
- <sup>3</sup> Professor and Head of Department of Prosthodontics, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences, Saveetha University, 162, Poonamallee High Road, Chennai 600077, Tamil Nadu, India.

#### **Abstract**

**Background:** Dental Implants are one of the most recent effective treatment methods to replace teeth in edentulous patients. Even though its been approximately 40 years since implantology came into existence, majority of the South Indians aren't aware about what implants are and it's benefits. This research is about how iPad applications have an impact in promoting and educating edentulous patients about implants and to determine whether patients are actually aware of this treatment.

**Aim:** To assess the patient awareness and acceptance of dental Implants as a treatment option for replacement of missing teeth. **Materials and Methods:** A survey was conducted based on a printed self explanatory questionnaire on patients approaching a private dental college in South India. A pilot test was done on 50 patients to evaluate the efficiency of the questionnaire. The questionnaire composed of 12questionsThe responses were collected and analysed.

**Results:** 58% of the subjects are aware of dental implants as a treatment option, but they chose other treatment methods due to high cost(67%), It needed a surgery(10%), fear (14%), time consuming(9%), While the other 42% were aware only of complete denture and fixed partial denture. The knowledge about implants is mainly obtained through their Personal dentist(52%), while media and social circle had a minor role.

**Conclusion:** The study inferred the major drawbacks for opting implant treatment was its high cost and the fear of a surgery. More innovative and rigorous methods of education would really help patients understand the benefits of implant treatment and help them attain proper aesthetics and a long lasting solution.

Keywords: Implant; Awareness; Video.

# Introduction

A dental implant is a surgical metal root that interfaces with the alveolar bone to support a dental prosthesis such as a crown , bridge, denture, maxilla-facial prosthesis or to act as an orthodontic anchor.[1]

Dental implants have opened the door to the 21st century in dentistry and oral rehabilitation. They have increased the treatment possibilities for patients and improved the functional results in their treatment of missing teeth. Patients who had to compromise their aesthetic value, chewing functionality due to complete or partial loss of tooth can now be restored back to normal aes-

thetics and function.[2]

The idea of replacing teeth started in 500 BC when the Etruscans replaced the missing tooth with carved teeth from the bones of oxen. Several experiments were done to replace the missing tooth with different metals and finally the breakthrough came in by Dr. Per-IngarBranemark who explained the osseo-integration of titanium rod to bone. It was in 1988 where the National Institute of Health consensus development conference on osseo-integration of dental implants catalysed the success and acceptance of dental implants as a treatment option for missing teeth.[3]

Even though it's been over 25 years since the discovery of im-

### \*Corresponding Author:

Dhanraj Ganapathy,

Professor and Head of Department of Prosthodontics, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences, Saveetha University, 162, Poonamallee High Road, Chennai - 600077, Tamil Nadu, India. Tel: 9841504523

E-mail: dhanrajmganapathy@yahoo.co.in

**Received:** May 28, 2021 **Accepted:** June 16, 2021 **Published:** July 01, 2021

Citation: Edala Venkata Gana Karthik, Marian Anand Bennis, Dhanraj Ganapathy. Dental Implant Awareness Among Patients. Int J Dentistry Oral Sci. 2021;8(7):2960-2964. doi: http://dx.doi.org/10.19070/2377-8075-21000601

Copyright: Dhanraj Ganapathy® 2021. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

OPEN ACCESS https://scidoc.org/IJDOS.php

plants and a treatment option, the recognition of implants as an alternative treatment for missing teeth is quite less. [4, 5] This problem is more significant in developing nations where there is lack of education and awareness amongst people about dental implants as a dental treatment option.[3]

Several reports have shown that dental implants are highly accepted by dental patients. [6] reported that, of the patients questioned, 88% had an increase in their self confidence after implant treatment, 89% said that they would accept to go through implant treatment procedure again, and 98% said their oral health had generally improved. Other reports from Finland (Salonen, 1994) and Australia have shown that the level of awareness of dental implant treatment procedures among selected group of patients was found to be around 29% and 64%, respectively [7]. A survey report from Austria showed that the awareness rate of dental implant procedure was 72%, and 42% of those who questioned said that they were not informed at all about dental implants, while only 4% said they were well informed about dental implants. [8]

Awareness on one side, convincing the edentulous patients to get an implant is also a major problem. Edentulous patients knowing about an implant prefer other tooth replacement techniques such a as a removable parital denture or a fixed partial denture due to various reasons such a fear, long term procedure, need surgery and high cost being the major reason. This article also states how several IPad applications have an impact in convincing the patient to choose a dental implant over other various procedures.

Complete information on implant treatment and alternative therapies must be provided to guide the patient in the choice of the most appropriate option. Therefore the aim of the present study was to assess the patient awareness and acceptance of dental Implants as a treatment option for replacement of missing teeth. Our

research experience has prompted us in pursuing this study [9-18].

# **Materials And Methods**

A survey was conducted based on a printed self explanatory questionnaire on patients approaching a private dental college in South India. A pilot test was done on 50 patients to evaluate the efficiency of the questionnaire. The questionnaire composed of 12 questions was finally used to evaluate the following:

- 1) To evaluate the level of awareness of dental implant as a treatment option for missing teeth.
- 2) To evaluate the level of acceptance of dental implants.
- 3) To evaluate the level of awareness among patients from rural or urban areas.
- 4) To evaluate the source of information about dental implants.

Questionnaire was prepared in both English and Tamil (local language of Tamil Nadu) to get a better understanding of the questions by the respondents.

This study was conducted on 50 patients in which the respondents percentage was 100% and non respondents percentage was 0%.

All the respondents were informed about the aims and objectives of the study before they were given the questionnaire.

The questionnaires were handed to the patients during their regular dental visits. The collected data was entered into a computer and was analysed using Microsoft Excel and Statistical Pacakage for Social Sciences (SPSS Inc., Chicago, IL) software. Statistics were generated to summarize the responses from the questionnaire.

Figure 1.

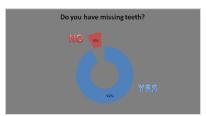


Figure 2.



Figure 3.



# Figure 4.



Figure 5.

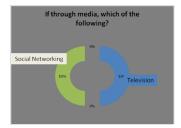


Figure 6.

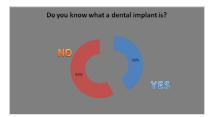


Figure 7.



Figure 8.

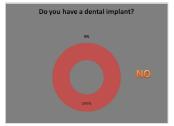


Figure 9.



# **Results And Discussion**

From the above obtained results, it is evident that 58% of the subjects are aware of dental implants as a treatment option, but they chose other treatment methods due to high cost (67%), It

needed a surgery (10%), fear (14%), time consuming (9%), While the other 42% were aware only of complete denture and fixed partial denture. The knowledge about implants is mainly obtained through their Personal dentist (52%), while media and social circle had a minor role. Using a video, a proper explanation was given to the patients about the treatment procedure which helped them understand the benefits of an implant. All the subjects felt that

OPEN ACCESS https://scidoc.org/IJDOS.php

## Figure 10.

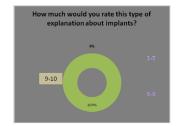
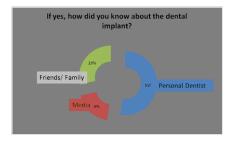


Figure 11.



this method of approach to convince the patient for an implant was very helpful and on a scale of 1-10, it had a score of 9-10.

According to the findings of a survey by Pommer et al., patients' attitudes about their dental health improve after treatment with implants. These results are in line with those of previous research that looked at the attitudes of patients. The most common reason for having implants was to enhance eating capacity, according to this report. Eighty-two percent of respondents said implant therapy improved their eating capacity. Other major issues included disappointment with a removable prosthesis and tooth replacement. A study looked at how patients' psychological and psychosocial behaviors changed after acquiring implant prostheses. Most patients no longer perceived the prosthesis as a "foreign" object in the mouth and began to experience it as a "part of self." Many patients enhanced their speaking abilities, and half of the respondents said their relationships with the opposite sex had improved [19]. In addition, most people said they smiled more and felt more at ease in social situations. In the eyes of the patients, the dentist is primarily responsible for the final implant cost. Just 12% of those polled thought implants should be paid for by social security or the sick fund, while 75% thought they should be paid for by the patients themselves. Initial surgical and prosthetic care, as well as time costs, account for the majority of dental implant costs, with repair and time costs accounting for just about a third of the total. Patient satisfaction with dental implant care poses a significant potential problem. A optimistic attitude about dental implants was largely based on personal experience with implant care [20]. To reduce patient resentment, professional public relations activities and confidence-building tools are recommended. For providing prospective implant patients with reasonable expectations, communication guidelines should be developed. Improved communication may lead to a higher level of patient acceptance of dental implants as a treatment option in the long run [3, 20].

# Conclusion

The major drawbacks for implant treatment was its high cost and the fear of a surgery. But this way of approach would really help them understand the benefits of implant treatment and help them attain proper aesthetics and function with a long lasting solution.

## References

- [1]. Knöfler W, Barth T, Graul R, Krampe D. Retrospective analysis of 10,000 implants from insertion up to 20 years-analysis of implantations using augmentative procedures. Int J Implant Dent. 2016 Dec;2(1):25.Pubmed PMID: 27915417.
- [2]. 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. Saudi Dent J. 2010 Oct 1;22(4):183-8.
- [3]. Alajlan A, Alhoumaidan A, Ettesh A, Doumani M. Assessing Knowledge and Attitude of Dental Patients regarding the Use of Dental Implants: A Survey-Based Research. Int J Dent. 2019 Jul 28;2019:5792072. Pubmed PMID: 31467547.
- [4]. Kohli S, Bhatia S, Kaur A, Rathakrishnan T. Trends in patients' mindset on dental implants: A survey in Malaysia. J Dent Implant. 2014 Jan 1;4(1):33.
- [5]. Brunello G, Gervasi M, Ricci S, Tomasi C, Bressan E. Patients' perceptions of implant therapy and maintenance: A questionnaire-based survey. Clin Oral Implants Res. 2020 Oct;31(10):917-927.Pubmed PMID: 32645229.
- [6]. Grogono AL, Lancaster DM, Finger IM. Dental implants: a survey of patients' attitudes. J Prosthet Dent. 1989 Nov 1;62(5):573-6.
- [7]. Pommer B, Zechner W, Watzak G, Ulm C, Watzek G, Tepper G. Progress and trends in patients' mindset on dental implants. II: implant acceptance, patient-perceived costs and patient satisfaction. Clin Oral Implants Res. 2011 Jan;22(1):106-12.Pubmed PMID: 20946207.
- [8]. Salonen MA. Assessment of states of dentures and interest in implant-retained prosthetic treatment in 55-year-old edentulous Finns. Community Dent Oral Epidemiol. 1994 Apr;22(2):130-5.Pubmed PMID: 8205780.
- [9]. Hemalatha R, Dhanraj S. Disinfection of Dental Impression- A Current Overview. Cuddalore. 2016 Jul;8(7):661–4.
- [10]. Ramya G, Pandurangan K, Ganapathy D. Correlation between anterior crowding and bruxism-related parafunctional habits. Drug invent. today. 2019 Oct 15;12(10).
- [11]. Anjum AS, Ganapathy D, Kumar K. Knowledge of the awareness of dentists on the management of burn injuries on the face. Drug invent. today. 2019 Sep 1;11(9).
- [12]. Inchara R, Ganapathy D, Kumar PK. Preference of antibiotics in pediatric dentistry. Drug Invent Today. 2019 Jun 15;11:1495-8.
- [13]. Philip JM, Ganapathy DM, Ariga P. Comparative evaluation of tensile bond strength of a polyvinyl acetate-based resilient liner following various denture base surface pre-treatment methods and immersion in artificial salivary medium: An in vitro study. Contemp Clin Dent. 2012 Jul;3(3):298-301. Pubmed PMID: 23293485.
- [14]. Gupta A, Dhanraj M, Sivagami G. Implant surface modification: review of literature. Internet J. Dent. Sci . 2009;7(1):10.
- [15]. Indhulekha V, Ganapathy D, Jain AR. Knowledge and awareness on biomedical waste management among students of four dental colleges in Chennai, India. Drug Invent Today. 2018 Dec 1;10(12):32-41.

- [16]. Mohamed Usman JA, Ayappan A, Ganapathy D, Nasir NN. Oromaxillary prosthetic rehabilitation of a maxillectomy patient using a magnet retained two-piece hollow bulb definitive obturator; a clinical report. Case Rep Dent. 2013;2013:190180.Pubmed PMID: 23533823.
- [17]. Ganapathy DM, Joseph S, Ariga P, Selvaraj A. Evaluation of the influence of blood glucose level on oral candidal colonization in complete denture wearers with Type-II Diabetes Mellitus: An in vivo Study. Dent Res J (Isfahan). 2013 Jan;10(1):87-92.Pubmed PMID: 23878569.
- [18]. Menon A, Ganapathy DM, Mallikarjuna AV. Factors that influence the col-
- our stability of composite resins. Drug Invent Today. 2019 Mar 1;11(3).
- [19]. 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 Oct;14(5):621-33.
- [20]. Zinmor CM, Zimmer WM, Williams J, Liesener J. Public awareness and acceptance of dental implants. Implant Dent. 1993 Apr 1;2(1):54-5.