

Evaluation of Knowledge, Attitude and Awareness of patients regarding dental implants in Central India.

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Type of Publication: Original Research Paper

Conflicts of Interest: Nil

Abstract

Aim: To evaluate Knowledge, Attitude and Awareness of Patients regarding Dental Implants in Central India.

Material and Methods: A total of 140 patients completed a comprehensive questionnaire.

Conclusion: Most of the patients have limited knowledge of dental implants.

Clinical significance: Dental professionals should educate their patients on the merits of implant based treatment options at the time of consultation.

Keywords: dental implants implant supported prosthesis, awareness, hygiene.

Introduction

The first use of intraoral titanium implants was proposed in 1950s, since then the practice of implant dentistry has become increasingly more popular for the restoration of

missing teeth.(1) Today even though the local hard and soft tissues are compromised, a majority of partially edentulous and edentulous patients can be offered implant related treatment options with a good prognosis than the conventional treatment plan .(1) The patient opinion for the treatment and the psychological impact following implant treatment have limited study information. (1)Replacement of the missing teeth using implant-supported prostheses for the purpose of esthetic and functional efficiency is now widely accepted and extensively used treatment approach in dentistry. (2)Nowadays due to improvement in dental technology, the patients with different indications can be treated with various modalities.(2) With rising demand and high expectations of the patient for implant supported prosthesis, dentists are faced with end number of

challenges to provide ideal esthetics and function. (2)Currently, dental implant is considered as a progressively extensive treatment option with a high success rate. (3) Recently, assessing the level of patient's knowledge related to dental implants has become important to see whether their insight of dental implants does indeed reflect reality in order to guide patients who do not have the education or background knowledge to make a well-versed decision between implant supported dentures and removable dentures. (3)Many studies in different parts of the world have been conducted regarding the awareness of dental implants as a treatment option. (3) However, a little information is available to the patient regarding its procedure and success.(4) In developing nations, where there is lack of awareness and knowledge amongst the people regarding dental implants as a treatment modality, the problem is more intense. (4)This study aims to evaluate the awareness of the patients regarding implant-retained prosthesis as a tooth replacement option and the knowledge regarding tooth replacement as a whole including sources of information and the attitude towards it. (3)

Materials and Methods

- A descriptive, cross-sectional survey was conducted using self-administered questionnaire involving the patients reporting to the Department of Prosthodontics, SPDC College, Sawangi.
- A comprehensive close-ended, interviewer-administered questionnaire comprising 14 questions was designed.
- The questionnaire administered to the patient was prevalidated from the Subject Experts.
- This questionnaire was available both in English and Marathi language to ensure linguistic validity.
- 140 subjects were selected according to the inclusion and exclusion criteria.

Inclusion criteria

Patient above 18 years of age.

Exclusion criteria

Patient below 18 years of age

Patients that is mentally challenged or physically handicapped.

The purpose and nature of the study was explained to each patient fitting in the inclusion criteria and the willing patients were requested to complete a comprehensive closed ended, self-administered questionnaire. The patients were asked not to reveal their identity on the questionnaire.

Statistical Analysis

Statistical analysis was done by using descriptive and inferential statistics using z-test for single proportion and chi-square test and software used in the analysis was SPSS 22.0 version and Graph Pad Prism 6.0 version and p<0.05 is considered as level of significance.

Result

Table 1. Patient's knowledge and attitude regarding Dental Implants.

Sr. no.	Questions	Yes (%)	No (%)	Cannot say (%)
1)	Have you ever heard about dental implants?	42.14	57.86	
2)	Do you know about implants as an option to replace missing teeth?	37.86	62.14	
3)	Would you like to get more information regarding implants?	86.43	13.57	
4)	Do you know someone with dental implant treatment?	41.43	58.57	
5)	If yes, was you/that acquaintance satisfied with dental implants?	60.34	39.66	
6)	Would you restore your missing teeth with dental implants?	60	17.86	22.14
7)	Would you decide on such procedure if your financial situation would allow?	93.57	6.43	

1) How well informed do you feel subjectively about implants?

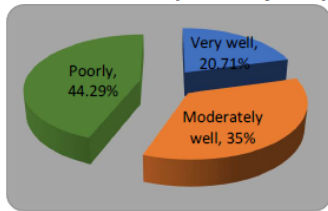


Fig. 1. Subjective information about implants

2) What are your sources of information about alternatives for replacement of teeth?

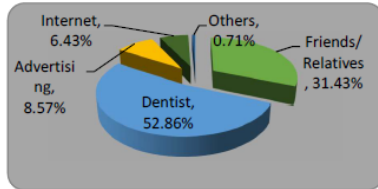


Fig. 2. Alternative information sources for replacing teeth

3) What are your sources of information about dental implants?

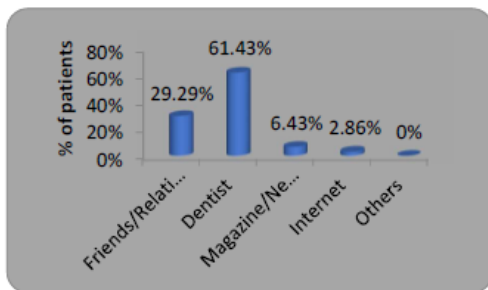


Fig. 3. Source of information about dental implant

4) How much are you prepared to pay as an additional amount for dental implant?

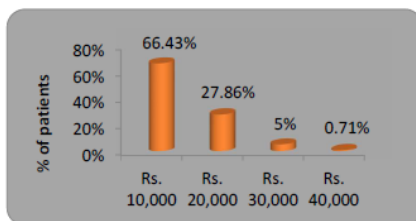


Fig. 4. Additional expenses which can be bared for dental implant

5) Do you think implants need special care and hygiene?

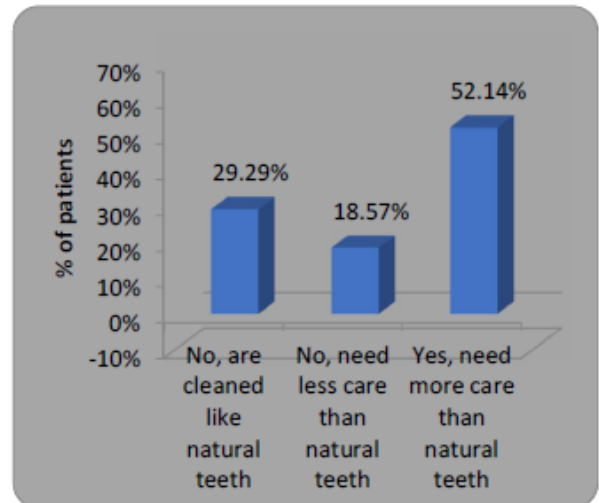


Fig. 5. Need for special care and hygiene

6) How long do you think dental implant lasts?

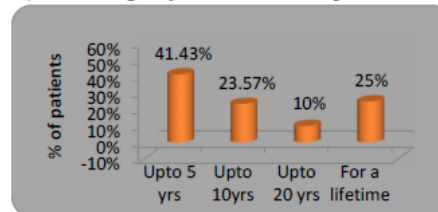


Fig. 6. Longevity of dental implant

7) Which is the biggest factor preventing you from choosing dental implants?

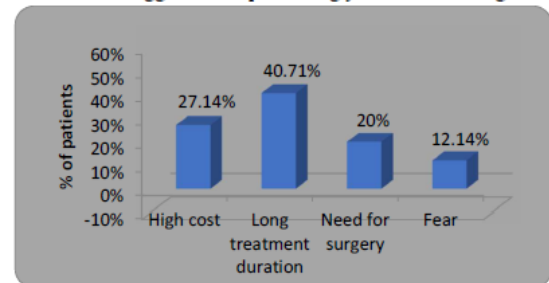


Fig. 7. Factor restraining to opt for dental implants

Discussion

The present survey provides information about subject's knowledge, attitude and awareness about dental implants as an option to replace missing teeth. About a million dental implants are inserted every year worldwide. (7) However, the patients awareness and knowledge regarding the procedure and its success, is quite less. (5) In the present study, awareness regarding

implants was 37.86% which was very less than the previous studies conducted by Zimmer et al (1992),(8)Berge (2000),(9)and Tepper et al (2003)(10) which reported the level of awareness as 77,70.1 and 72%, respectively. It was more than the study conducted by Satpathy et al. (4)In the present study, only 35% of the respondents were moderately well informed regarding the different sources of information about alternatives for replacement of missing teeth. Thus it is necessary to endorse dental implant and increase the awareness of such advanced treatment modalities in the society.61.43% of the respondents stated their dentist as their source of hearing about dental implants followed by relatives and friends, newspapers or magazines and internet,. This is in agreement with Pommer et al.,(7) Chowdhary et al., (11) Satpathy et al., (4) Mukatash et al., (12) and Ravi Kumar et al., (13) all of whom statedthat dentists are the main source of information. This finding is contradictory to the study done in the USA, stating media as the main source. (9) Thus, it is important to promote dental implant treatment, mostly by meansof effectively bridging the communication between patients and their dentists and other options such as emphasizing the use of dental implants in health related articles in newspapers or health magazines.(10)There is a necessity for the dental students to learn to incorporate the indication of oral implants in their overall treatment planning by acquiring knowledge about the basic aspects of healing and tissue integration, surgical and prosthetic technique along with basic biomechanical and material science principles. Moreover, they should have the ability to monitor the peri-implant tissue and render appropriate supportive therapy continuously along with its considerations for biological and technical complications.(14)About 86% of the interviewed population desired to have more information about dental implants.(4)About 60% of the interviewed

population who knew someone or themselves performed implant procedure were satisfied with the treatment. Pommer et al. (7) reported that 39% of the population assumed that implants required more care and half of them cleaned their implants similar to natural teeth. (2) In the current study,almost half of the patients considered that implants needed more care than natural teeth. About 29% of subjects cleaned their teeth similar to the natural dentition. These findings were constant with the results of Al-Johany. (6)Dentists should explain their patients the significance of dental hygiene and care before implant therapy. (2) Also education and motivation should be done to provide sufficient dental care for the maintenance of implants. (2)A significant observation was made when patients were asked about their expectation regardinglife span of dental implant; about 40% of the patients expected the lifespan to be within 5 years and 25%expected it to last for a life time.(4) As the patient expectations are highly impractical, there arises a need forpatient education which must include proper explanation about dental implant's longevity. Barkhordar et al(2000) (15) carried out a study in which a comparative evaluation was done between the effectiveness of a multimedia program as well as an information leaflet in informing potential implant patients visiting a dental hospital. The end result of this study revealed that if the information to be presented is visual in nature, a multimedia presentation can have a more positive impact than an equivalent leaflet. However, both the methods of information presentation are effective in their own way. Almost 40% of the participants voted long treatment duration as the biggest disadvantage of implant treatment followed by high cost, special need for surgery and fear. This is not consistent with the American (8) and Japanese studies(16) where cost and resentments regarding surgery were stated to be the major disadvantages of implants.(4)

Conclusion

- This study clearly demonstrated that only one third of the population is aware of dental implants as an option to replace missing teeth.
- Although a majority of participants got information on implants from their dentists, they still wanted additional information.
- More than half the patients or their known acquaintances were satisfied with the implant treatment.
- Most of the patients agreed for the dental implant treatment provided their financial condition allows them and the treatment duration is less.
- Most of the patients thought that dental implant lasts for around 5 years so special efforts must be made to improve the doctor patient communications to bridge this information gap.
- Thus, it is important for dental professionals to educate their patients on the merits of implant based treatment options and improve their understanding of implant therapy at the time of the consultation.

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Questionnaire For Survey

1. Have you ever heard about dental implants?
 - a) Yes
 - b) No
2. Do you know about implants as an option to replace missing teeth?
 - a) Yes
 - b) No
3. How well informed do you feel subjectively about implants?
 - a) Very well
 - b) Moderately well
 - c) Poorly
4. What are your sources of information about alternatives for replacement of teeth?
 - a) Friends/Relatives
 - b) Dentist
 - c) Advertising
 - d) Internet
 - e) Others

5. What are your sources of information about dental implants?
 - a) Friends/Relatives
 - b) Dentist
 - c) Magazine/Newspaper
 - d) Internet
 - e) Others
6. Would you like to get more information regarding implants?
 - a) Yes
 - b) No
7. Do you know someone with dental implant treatment?
 - a) Yes
 - b) No
8. If yes, was you/that acquaintance satisfied with dental implants?
 - a) Yes
 - b) No
9. Would you restore your missing teeth with dental implants?
 - a) Yes
 - b) No
 - c) Cannot say
10. How much are you prepared to pay as an additional amount for dental implant?
 - a) Rs.10,000
 - b) Rs.20,000
 - c) Rs.30,000
 - d) Rs. 40,000
11. Do you think implants need special care and hygiene?
 - a) No, are cleaned like natural teeth
 - b) No, need less care than natural teeth
 - c) Yes, need more care than natural teeth
12. How long do you think dental implant lasts?
 - a) Upto 5 yrs
 - b) Upto 10 yrs

c) Upto 20 yrs

d) For a lifetime

13. Which is the biggest factor preventing you from choosing dental implants?

a) High cost

b) Long treatment duration

c) Need for surgery

d) Fear

14. Would you decide on such procedure if your financial situation would allow?

a) Yes

b) No