

“Awareness among Patients Regarding Dental Implants as A Treatment Option for Replacing Missing Teeth In Melmaruvathur Population”.

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I. Introduction

The aim of today's dentistry is to restore the patient to normal function, speech, aesthetics and health. Dental implants were originally used for treatment of edentulous patients and are associated with improved denture retention, stability and functional efficiency. Due to the high success rates and predictability of dental implants, their prevalence in the rehabilitation of partially dentate and edentulous patients is increasing year by year. Advantages of implant-supported restorations include psychological benefits and tooth structure conservation adjacent to the teeth to be replaced. The overall desire for better oral health-related quality of life has become a reality in prosthetic dentistry. (1,2,3,4)

According to Pommer *et al.* (5), in Austria, there was, over the course of 5 years, a dramatic escalation in interest of implant treatment. At the time of the second survey (2008), 79% of participants expressed desire for implant treatment in comparison with 56% in the first survey (2003).

The number of dental implants inserted annually worldwide has been estimated to be close to 1 million. However, the level of information available to patients about realistic, evidence-based treatment options with implants is often only fragmentary, and what is disseminated by the media and industry does not always reflect evidence-based data.(8,9&10)

For professionals, it is vital to assess patient's level of knowledge with regards to dental implants and whether their perception of dental implants does in fact reflect reality. Thus, alleviating the negative image of implant dentists due to miscommunication and patient discontent.

A Questionnaire survey from a representative sample of the general Melmaruvathur population is therefore needed to assess public awareness and understanding of dental implants.

Aims and Objectives

1. To evaluate the awareness among patients for dental implant therapy.
2. To evaluate the level of knowledge among the populations with regards to dental implants therapy.

II. Materials & Methods

This questionnaire-based survey was conducted. All the respondents were informed about the aims and objectives of the study. Those who were not willing to participate were excluded from the study. The demographic data of each patient including the Gender, Age, Education, and Qualification were recorded before the survey.

The Questionnaire with a total number of 18 questions for the survey was listed in numbers in the following order of which the question numbers 1,4,5,6,7,9,10,11,12 were used for this study.

1. Do you know missing teeth should be replaced?

- a) Yes always
- b) Yes if the gaps visible
- c) No not necessary

2. What alternatives for replacing teeth do you know?

- a) FPD
- b) RPD
- c) CD
- d) Implant

3. Would you be content with removable placement /denture as replacement for missing tooth?

- a) Yes
- b) No

4. Have you Heard of implant treatment?

- a) Yes
- b) No

5. Do you know that implants can be used for replacement of missing teeth?

- a) Yes
- b) No

6. How well informed do you feel about implant?

- a) Very well
- b) Well
- c) Moderately well
- d) Poorly
Not at all

7. Would you like to get implant treatment if needed?

- a) Yes
- b) Not at all

8. What do you Personally think of dental implant treatment?

- a) Opted if needed
- b) Opted for other alternatives

9. Do you think Implant needs special care and hygiene?

- a) No
- b) No, less than natural teeth
- c) Yes need more care

10. Would you like to know more about dental implants?

- a) Yes
- b) No

11. Where do you think dental implants are placed?

- a) Jaw bone
- b) Gums
- c) Neighboring teeth
- d) Don't know

12. How long do you think a Dental implant lasts?

- a) <5 yr.
- b) <10
- c) Upto 20
- d) Life time

13. What do you think is the biggest advantage of implant?

- a) Fixed is better
- b) Looks better
- c) Good in function
- d) Avoids grinding of natural teeth

14. What do you think is the biggest disadvantage of dental implants?

- a) High cost
- b) Need of surgery
- c) Long treatment time

15. What could be the reason for failure of dental implants?

- a) Dentist
- b) Patient
- c) Poor oral hygiene
- d) Allergic/incompatibility

16. How do you think the treatment charges, which are involved in this procedure?

- a) Affordable
- b) Non affordable

17. What in your opinion majority contributes to the cost of dental implants?

- a) Cost of dental implants
- b) Cost of surgery
- c) Company supplying implant
- d) Dentist

18. Who in your Opinion should opt for dental implant?

- a) Implants are good for every one
- b) Expensive only for rich

This Survey study was conducted through printed self-explanatory questionnaire composing of questions with the intention of evaluating dental implant as a treatment option among the Melmaruvathur populations. It consists of 18 questions to find out the level of awareness about dental implants, evaluating the level of information about dental implants. The questionnaire was prepared both in English and Tamil (local language) to enable completion and to improve the respondents understanding of the questions. (6,7,8,9,10 &11) A total of 510 questionnaires were distributed to various age groups ranging from 20 years and below, 21 to 40 years, 41 to 60 years, 61 to 80 years and 80 years of which 480 were answered. They were also grouped according to various levels stated in the questionnaire.

TABLE-1

DEMOGRAPHIC DATAS ³	TOTAL PARTICIPANTS- 480	
GENDER	Male	261 (54%)
	Female	219 (46%)
AGE (IN YEARS)	20 and < 20 years	65 (14%)
	21 to 40	207 (43%)
	41 to 60	146 (30%)
	61 to 80	62 (13%)
EDUCATION	Upto high school level	136 (28%)
	Upto college	190 (40%)
	Upto university and above	109 (23%)
	Uneducated	45 (9%)
QUALIFICATION	Student	66 (14%)
	Unemployed	56 (12%)
	Housewife	67 (14%)
	Unskilled	62 (13%)
	Professional	113 (23%)
	Business	116 (24%)

SURVEY DATA		
1	Do you know missing teeth should be replaced?	
a)	Yes, always	227
b)	Yes, if the gaps visible	178
c)	No, not necessary	105
2	What alternatives for replacing teeth do you know?	
a)	FPD	167
b)	RPD	106
c)	CD	167
d)	Implant	70
3	Would you be Content with removableplacement /denture as replacement for missing tooth?	
a)	Yes	262
b)	No	248
4	Have you Heard of implant treatment?	
a)	Yes	357
b)	No	153
5	Do you know that implants can be used for replacement of missing teeth?	
a)	Yes	304
b)	No	206
6	How well informed do you feel about about implant?	
a)	Very well	41
b)	Well	114
c)	Moderately well	142
d)	Poorly	203
e)	Not at all	10
7	Would you like to get implant treatment if needed?	
a)	Yes	356
b)	Not at all	154
8	What do you Personally think of dental implant treatment?	
a)	Opted if needed	371
b)	Opted for other alternatives	139
9	Do you think Implant needs special care and hygiene?	
a)	No	192
b)	No less than natural teeth	91
c)	Yes need more care	227
10	Like to know more about dental implants?	
a)	Yes	407
b)	No	103
11	Where do you think dental implants are placed ?	
a)	Jaw bone	332
b)	Gums	63
c)	Neighbouring teeth	48
d)	Don't know	67
12	How long do you think a Dental implant lasts ?	
a)	<5 yr	208
b)	<10	166
c)	Upto 20	51
d)	Life time	85
13	Biggest advantage of implant	
a)	Fixed replacement	141
b)	Looks better	242
c)	Good in function	91
d)	Avoids grinding of natural teeth	36
14	Biggest disadvantage	
a)	High cost	284
b)	Need of surgery	142
c)	Long treatment time	84
15	Reason for failure of dental implants?	
a)	Dentist	130
b)	Patient	82
c)	Poor oral hygiene	165
d)	Allergic/Incompatibility	133
16	How do you think the treatment charges which are involved in this procedure?	
a)	Affordable	176

b)	Non affordable	334
17	What in your opinion majority contributes to the cost of dental implants?	
a)	Cost of dental implants	277
b)	Cost of surgery	127
c)	Company supplying implant	53
d)	Dentist	53
18	Who in your Opinion should opt for Dental implant ?	
a)	Implants are good for every one	239
b)	Expensive only for rich	271

III. Results

The present survey gives information about patient's awareness, acceptance of dental Implants as a treatment modality for replacement of missing teeth in dental patients in Melmaruvathur, Tamilnadu, India. This study population (aged <20 - 80 years) was selected for ease of access and to increase the response rate, as they were dental patients who approached Adhiparasakthi dental college and hospitals for their dental needs. In all 480 patients participated in the survey (M = 261(54%); F = 219(48.14%). Table 1 summarizes the demographic data & Table 2 summarizes the Survey data of the participating patients.

General Awareness Regarding Replacing Missing Teeth:

For the question on whether missing teeth should be replaced, overall 38% (182) were of the opinion that it was imperative to go for replacement of missing teeth in all cases, 36% (176) thought it was required only if it is aesthetically unpleasant and 21%(105) reported it was not necessary to replace missing teeth. A majority of surveyed population seemed to understand the need for replacement of missing teeth.

General Awareness Information About Dental Implants:

A Majority of 69% (331) had reported that they have heard of implant treatment before and only 26% (149) had reported that they had never heard about dental implants. Of the patients who had heard of implant treatment before, a 42% (203) also stated that the dental implants will be placed in the jawbone and 58% (277) of the patients were totally unaware of where the implants will be placed.

A 32% (155) of patients felt they have poor awareness, 28% (133) have moderate awareness, 35% (169); have good awareness regarding dental implant therapy.

Dental Implant As An Option For Replacement Of Missing Teeth:

A 58% (280) of the patients were aware and 42% (200) were not aware that dental implants can be used to replace missing teeth

Life Span Of Dental Implant Treatment:

24% (115) of patients thought dental implants would last upto 20 years while majority of 41% (196) expected it to last for a lifetime.

Need For Special Care And Hygiene:

While 54% (263) felt dental implants needed less care in comparison to natural teeth and 46% (217) did feel that they require more care than the natural teeth.

Interested In Knowing And Getting Treated With Dental implants:

An Overwhelming 75% (362) of patients were willing to know and a 25% (118) of the patients were not interested to know about dental implant therapy.

Of the patients willing to know about dental implant therapy, 74% (356) of patients were willing & 32% (154) are not willing to get treated with implants.

IV. Discussion

Dental implant treatment has been at the forefront of clinical dental practice for over a decade and a half now (2). With increasing success rate of implant treatment more patients are opting for dental implants as premier choice for replacement of missing teeth. Rising awareness of an advanced treatment modality in the society paves way for its acceptability. However, advanced dental facilities are not in equal offering in all areas. In a time when metros and first tier cities boast of latest advancement and technology same is not true for the second tier cities and rural areas (3).

Surveys conducted to collect to assess awareness level in patient population always come handy in deciding future approach. Although many surveys have been conducted on dental awareness there exists limited data on the patient awareness about dental Implants in India, especially in Tamilnadu.

Our survey reports conducted in Melmaruvathur, Kancheepuram district, Tamilnadu, India stated following:

General Awareness Regarding Replacement Of Missing Teeth:

About 60 percent majorities of the people havestated that the missing teeth should be replaced especially if it is unaesthetic. Thirty percent of the surveyed population had no awareness of the consequences of non-replacement of the missing teeth.

General Awareness Information About Implants:

An awareness level of, “what is an Implant?,in Melmaruvathur population is about 69% which is not totally contrast to one of the earliest surveys conducted on this topic by Zimmer et.al (4) which investigated the public awareness and acceptance of dental implants in 120 American citizens and reported awareness as high as 77%. A recent study conducted in 1000 Austrian individuals by Pommel et al(5)also reports awareness of dental implants of 79% while a Norwegian survey (6) reported in 2001 reported dental awareness level of 70%. Our results were however higher than the reported awareness level of 23.24% in a survey conducted in Indian population by choudhary et al (7).

Of the patients who had heard of implant treatment before, a 42% (203) also stated that the dental implants will be placed in the jawbone

Dental Implant As An Option For Replacement Of Missing Teeth:

When it comes to Dental implants as a replacement of missing teeth in Melmaruvathur population, about half of the surveyed patients are totally unaware.

Life Span Of Dental Implant Treatment:

A pertinent observation was made when patients were asked about their expectation of life span of a dental implant, around 20% of the patients expected the life span to be 20 years and 41% expected it to last for a lifetime. With highly unrealistic patient expectations the need for patient education arises.

Need For Special Care And Hygiene:

A 54% of the patients had responded that Dental Implants needed less postoperative care than natural teeth.

Interested In Knowing And Getting Treated With Dental Implants:

Around 75% of the dental patients questioned in this survey were interested in knowing more information as well as willing to get treated with dentalimplants. Breakup analysis shows that thiswas consistent across all gender, age groups,and occupational and educational status. Thisoutlines the yearning in dental patients fordental education about dental implants.

V. Conclusion

1. More dental education programs needed to be given to improve the level of understanding pertaining to the importance of restoration of the missing teeth.
2. General Implant awareness levels are satisfactory. However more awareness had to be given to patients for restoration of missing tooth with dental implants.
3. Dental Education programs with special emphasis on advantages, treatment, maintenance and postoperative care of dental implant therapy are needed.
4. More than 2/3rd of the surveyed population are interested in knowing and getting treated with Dental Implants.

References

- [1]. Shivani kohli, Shekhar Bhatia, Arvinder Kaur, Tiviya Rathakrishnan. Trends in patients’ mindset on dentalimplants: A surveyin Malaysia. Journal of Dental implants. jan-july 2014;4(1):33-35
- [2]. TepperG, 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):621-33.
- [3]. Muller F, Wahl G, Fuhr K. Age-related satisfaction with complete dentures, desire for improvement and attitudes to implant treatment. Gerodontology. 1994; 11(1):7-12.
- [4]. Zimmer CM, Zimmer WM, Williams J, Liesener J. Public awareness and acceptance of dental implants. Int J Oral Maxillofac Implants. 1992; 7(2): 228-32.

- [5]. 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.
- [6]. Berge TI. Public awareness, information sources and evaluation of oral implant treatment in Norway. *Clin Oral Implants Res.* 2000;11(5):401-8.
- [7]. Chowdhary R, Mankani N, Chandraker NK. Awareness of dental implants as a treatment choice in urban Indian populations. *Int J Oral Maxillofac Implants.* 2010;25(2):305-8.
- [8]. Anurag Satpathy, Amit Porwal, Arin Bhattacharya, Pratap Kumar Sahu . Patient awareness, acceptance and perceived cost of dental implants as a treatment modality for replacement of missing teeth: A survey in Bhubaneswar and cuttack. *International journal of public health dentistry* 2011;2(1):1-7
- [9]. C. Ravi Kumar, KVNR Pratap, G. Venkateswararao . Dental Implants As An Option In Replacing Missing Teeth: A Patient Awareness Survey In Khammam, Andhra Pradesh. *Indian Journal of Dental Sciences.* December 2011;5(3):33-37
- [10]. Akagawa Y, Rachi Y, Matsumoto T, Tsuru H. Attitudes of removable denture patients toward dental implants. *J Prosthet Dent.* 1988; 60(3):362-4
- [11]. Ashistaru Saha , Sudipo Dutta, V Vijaya, N Rajnikant. Awareness among patients regarding Implants as a treatment option for replacement of missing teeth in chattisgarh . *Journal of International oral health.* Sept-oct 2013;5(5):48-52