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ORIGINAL ARTICLE

Awareness Of Dental Implants As A Treatment Modality Amongst People Residing In Jaipur (Rajasthan)

PRAGATI KAURANI*, MAYANK KAURANI*

ABSTRACT

AIM: To determine the level of awareness of implants as a dental treatment modality and the willingness of the people to undergo dental implants as a treatment if needed.

Method: A survey was conducted on 200 patients across Jaipur in private dental clinics and hospitals in the form of a printed questionnaire to evaluate the awareness about dental implants.

RESULTS: Out of the 200 urban dental patients, only 38% had heard about dental implants as a dental treatment modality, most of them being in the age group of 25- 44 years (35.5%), with no statistical significance difference between males and females. Out of these, 55.2% had heard it from their dentist and the rest had heard it from other sources like magazines and electronic media. 29% of the people were willing to undergo the treatment if needed and 61.1% cited high costs as the main reason for refusal of the treatment if needed.

CONCLUSION: The survey concluded that only 38 % of the urban population residing in Jaipur had heard about the dental implants as a treatment option, with only 29% of people willing to undergo the treatment if needed.

Key words: Implant awareness, willingness to undergo implant therapy.

Key Message: Lack of adequate awareness exists in people about dental implants as a treatment modality. Thus, greater efforts must be undertaken to spread the correct information and awareness amongst people residing in urban and rural India for a better acceptance of this treatment option.

* MDS - Prosthodontics, Mahatma Gandhi Dental College and Hospital, Jaipur
Corresponding Author:

Dr Pragati Kaurani, C/31, Pratap Marg, Tilak Nagar, Jaipur. 203014.
E mail : smile.pragati@gmail.com

INTRODUCTION

The aim of modern dentistry is to restore the patient to normal function, aesthetics, speech and health. Implant dentistry is unique because it has the ability to achieve these ideal goals. Patients with severely resorbed bones have benefitted tremendously by using dental implants as a treatment option. The successful use of dental implants in the treatment of edentulous arches has been confirmed in various clinical studies [1-4]. Cumulative

implant success rates in patients with partially edentulous arches were between 96.6% and 98.5% [5-9] and the cumulative implant-supported crown success rate was 93.7% [7], after an observation period of at least 5 years. An implant supported prosthesis has proven advantages like increased masticatory efficiency, maintenance of the bone, improved function, phonetics, aesthetics, etc.

Around one million dental implants are inserted each year, worldwide. [10] However,

the information which is available to the patients regarding the procedure and its success, is often fragmentary. This problem is more compounded in developing nations where dentists and the concerned authorities are not doing enough to educate and spread awareness amongst people about dental implants being a dental treatment modality.

For practicing clinicians, it is imperative to know whether today's patients are aware of dental implants as a treatment option and whether the information that they have is close to reality. Awareness amongst patients regarding the procedure can help in eliminating any negative image of the procedure that may have been caused due to lack of adequate communication. The right kind of information, if channelized to the patients correctly, will further help in promoting this superior treatment as a treatment option amongst the patients.

Thus, a survey was conducted amongst the residents of Jaipur to analyze the awareness about dental implants amongst these urban people, their main sources of information and their willingness to choose this treatment option if needed.

METHODS

200 people were surveyed from the urban population residing in Jaipur in Rajasthan, India. They were grouped according to-

A. Sex..... Male, Female

B. Age.....16 to 25 years, 26-44 years, 45 to 66 years, 67 to 79 years and 80 years and above.

C. Education levels1st to 12th grade, college/ university degree, and above.

[Table/Fig1] gives the details of these groups.

[Table/Fig 1]: Characteristics of all participants and those who had heard of dental implants as a treatment option

CHARACTERISTICS	TOTAL NUMBER OF PARTICIPANTS	TOTAL NUMBER OF PARTICIPANTS WHO HAD HEARD OF DENTAL IMPLANTS	PERCENTAGE OF PARTICIPANTS WHO HAD HEARD OF DENTAL IMPLANTS
A. SEX			
Male	120	48	63.1%
Female	80	28	36.8%
B. AGE			
16-24	42	19 (M=12, F=7)	25%
25-44	69	27 (M=17, F=10)	35.5%
45-66	44	17 (M=10, F=7)	22.3%
67-79	40	13 (M=7, F=6)	17.1%
80+	5	0	0%
C. EDUCATION			
1st to 12th grade	126	22 (M=16, F=6)	28.9%
Up to university/ college degree	43	36 (M= 19, F=7)	47.3%
Above	31	18 (M=9, F=9)	23.0%

The data was collected in the form of a questionnaire which was similar to the one which was used by previous researchers [10],[11]. The patients' consent to complete the questionnaire taken and then the interviewers filled the questionnaires. Local interviewers were chosen for an easy in communication with the patients. The questionnaire was filled in private dental clinics and dental hospitals across Jaipur. Those patients who had not heard of dental implants as a treatment option were educated in this regards and were then further questioned.

The following questionnaire was given:

- Are you aware of the implant therapy as an alternative for missing teeth?
 - Yes
 - No
- If yes, then where did you get to know about it?
 - From your dentist
 - Books/magazines/internet
 - Heard from someone who has already undergone this treatment.
- Do you have the knowledge of the implant placement procedure?
 - Yes
 - No
- How do you rate the treatment charges which are involved in this procedure?
 - Affordable
 - Not affordable.
- Are you willing to undergo an implant procedure if it is needed as a treatment option?
 - Yes
 - No
 - May be/ not sure
- If no, then what is the reason?
 - Very costly
 - Surgical procedure
 - Not too clear about the procedure

Fisher's exact test was used to determine the results.

RESULTS

Out of the 200 patients who were interviewed, only 76 (38%) had heard of the implant procedure, while the remaining 124 (62%) had no knowledge about the implant procedure. The characteristics of those participants who had heard about dental implants, like sex, age and education are mentioned in [Table/Fig 1].

SOURCES OF INFORMATION

Among those who were aware of dental implants, 55.2 % had heard about dental implants from their dentist, while only 15.7% had heard it from other sources of information like the media. The details of this data are given in [Table/Fig 2].

[Table/Fig 2]: Sources of information about dental implants as a treatment modality.

SOURCE OF INFORMATION	TOTAL NUMBER AND PERCENTAGE	MALES	FEMALES
1. DENTIST	N=42, 52%	28	14
2. MAGAZINES/MEDIA	N=12, 15.7%	7	5
3. HEARD FROM OTHERS WHO RECEIVED IMPLANTS	N=22, 28.9%	12	10

THE WILLINGNESS TO OPT FOR DENTAL IMPLANTS AS A TREATMENT OPTION

The patients who had not heard of dental implants were informed about the procedure and were then further questioned. [Table/Fig 3] shows the details of the patients who would consider dental implants as a treatment option if needed. After knowing the details of the procedure, 29% of the people were willing to use the dental implants as a treatment and 56 % were not willing to use them.

[Table/Fig 3]: Willingness to consider dental implants as a treatment option

WILLINGNESS FOR DENTAL IMPLANTS	TOTAL NUMBER OF PEOPLE AND PERCENTAGE	MALES	FEMALES
1. WERE WILLING	N=56, 29%	37	19
2. WERE NOT WILLING	N=112, 56%	90	22
3. WERE NOT SURE	N=32, 16%	12	20

Amongst the 112 patients who did not consider implants as a treatment option, 69 (61.6%) cited high cost as the main reason for the refusal, while 22 (19.6%) stated that it was a surgical procedure, and 21(18.7%) were not clear about the procedure.

DISCUSSION

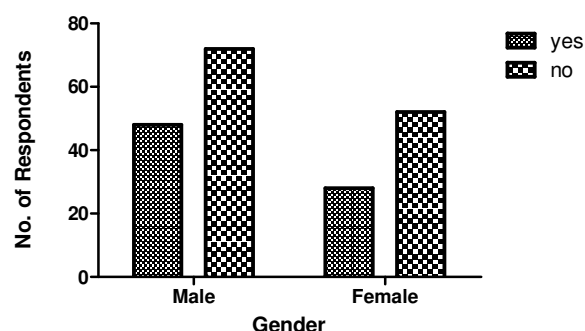
A survey was conducted amongst the urban population residing in Jaipur, regarding the awareness about implants as a treatment modality and their willingness to undergo this treatment if needed. A simple questionnaire was made and filled in private dental clinics and hospitals across Jaipur. Amongst the 200 patients that were questioned, only 38% had heard about the dental implants as a treatment modality, thus indicating the lack of awareness amongst people regarding dental implants, with no statistical difference in the awareness between males and females. The details of this data are given in [Table/Fig 4] and [Table/Fig 5].

[Table/Fig 4]: Test to know if gender plays any role in awareness of implants

Data analysed	Were aware of dental implants	Not aware of dental implants	Total
Males	48	72	120
Females	28	52	80
TOTAL	76	124	200

P value	0.5524
P value summary	ns
One- or two-sided	Two-sided
Statistically significant? (alpha<0.05)	No

[Table/Fig 5]: Awareness of implants according to gender



Most of these patients were of the age group of 25 to 44 years. A statistical difference existed between the levels of education and the awareness about implants, with greater awareness in people with higher education. The details of this data are given in [Table/Fig 6] and [Table/Fig 7]. This may be attributed to the better information availability with the use of newer technologies amongst the younger population as compared to the older age groups. Thus, factors such as living in the

urban areas, higher educational qualifications and age can be considered as the main influences which affect the awareness amongst the people.

[Table/Fig 6]: Test to know if education plays any role in awareness of implants

Data analysed	Were aware of dental implants	Were not aware of dental implants	Total
Education up to 12 th grade	22	104	126
College /university	54	20	74
TOTAL	76	124	200

Fisher's exact test

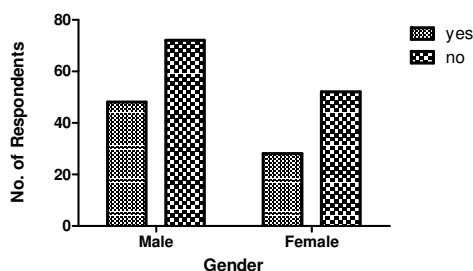
P value **P<0.0001**

P value summary ***

One- or two-sided Two-sided

Statistically significant? (alpha<0.05) **Yes**

[Table/Fig 7]: Awareness of implants as per education levels



Dentists were the main source of information amongst patients who were aware about dental implants as a treatment option, thus indicating the importance of clinicians in spreading awareness among common people. Other modes of information like magazines and media did not play a major role in spreading awareness amongst the people. This finding is different from previous studies. In the study by Zimmer in United States, dentists were cited as a source of information only by 17% [12] of the people. This difference may be because of the poor education levels in a developing nation like India, as compared to that in a developed country like the US. From the present study, it is clear that dentists play a major role among people to spread awareness about implants as a treatment option.

Amongst the people who were informed about implants, 56 % were not willing to undergo the procedure because they found this treatment option to be costly. This finding is similar to

that seen in previous studies, where the patients cited high costs as the major limiting factor of the treatment [12],[13]. The high costs of the procedure indicated that there was a need for dental insurance to cover the treatment for better and more acceptance of this treatment amongst the Indian people.

CONCLUSION

With in the limitations of this study, it can be concluded that only 38% of the people of Jaipur were aware about dental implants as a treatment modality. People of age groups between 24-44 years, who were educated up to the university / college level, were amongst those who were most highly informed about dental implants, with no statistical difference between males and females. Dentists were the main sources of information regarding dental implants amongst the people. This clearly indicates the lack of efforts by dentists and the governing bodies regarding taking necessary steps for creating awareness amongst the people. The high cost of the implants is one of the major limiting factors working against the willingness of patients to undergo this treatment. As this survey was conducted in a limited group of people, further studies are needed to be conducted amongst the people of urban and rural India to access the level of awareness about dental implants amongst a larger strata of people.

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