

Awareness among patients regarding Implants as a treatment option for replacement of missing teeth in Chattisgarh.

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ABSTRACT

Background: This survey was done to know awareness of patients regarding dental implants as a treatment option for replacement of missing teeth.

Materials & Methods: This cross sectional study was done among 483 subjects coming to dental college using a self administered structured questionnaire. The questionnaire was pre-tested through a pilot survey. The data were analyzed using the SPSS version 16.0. The Student's T-test and ANOVA test were used as test of significance at $p < 0.05$.

Results: Out of 483 participants, 290 were males and 193 females. Around 41.7% of the subjects were aware of dental implants but still few (4.1%) had undergone this procedure. Dental professionals were the main source of information followed by media about implants and level of awareness increased with education. High cost of the procedure was the main factor for not undergoing treatment procedure (35.2%).

Conclusion: More than half of the participants were not having information regarding implants and very few had undergone this procedure. It also showed that need for providing more information to the patients about this treatment modality. So, dental education is necessary for developing positive attitude among population regarding dental implants.

Key Words: awareness, Dental Implants, patients, treatment.

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Introduction

Oral Rehabilitation is the discipline within dentistry which deals with diagnosis, treatment planning and restoration of larger tooth defects, congenitally or acquired missing teeth and other oral tissues. The treatment can include restoration of teeth with crowns or replacement of teeth with implants, fixed partial dentures or removable dentures.¹

The main role of prosthodontics is the rehabilitation of

patients after loss of teeth and oral function. However there are generally no accepted rules about how to estimate need, demand or utilization of prosthodontic services in most situations, since financial condition and patients preferences play a very important role.² The treatment of edentulism with traditional removable dentures is less accepted due to many factors like anatomical, physiological, psychological

and also prosthodontic factors like it can often induce impaired masticatory function due to limited retention and stability, especially in the lower jaw.³ However with the advent of new technology, more restorative options have become available, thereby changing the demand for prosthodontic treatment. Implant treatment has come into focus since this treatment option has provided excellent long term results by increased retention, stability, functional efficiency and quality of life.⁴

Complete information on implant treatment and alternative therapies must be provided to guide the patient in the choice of the most appropriate option.⁵ This problem is more magnified in developing nations where there is lack of education and awareness amongst people about dental implants as a dental treatment modality. Therefore the aim of the present study was to assess the patient awareness and acceptance of dental Implants as a treatment modality for replacement of missing teeth.

Materials and Methods

An epidemiological study was done to assess the level of awareness regarding dental implants among patients coming to dental college during January 2013.

Ethical permission: Before onset of the survey, an ethical permission was taken from the ethical committee of the Institute and a written informed consent was obtained from all the participants. A pilot

survey was done among 20 subjects and a sample of 550 patients was finalized.

Inclusion and exclusion criteria: All the subjects coming to dental college and who were willing to give informed consent and above 20 years of age were included.

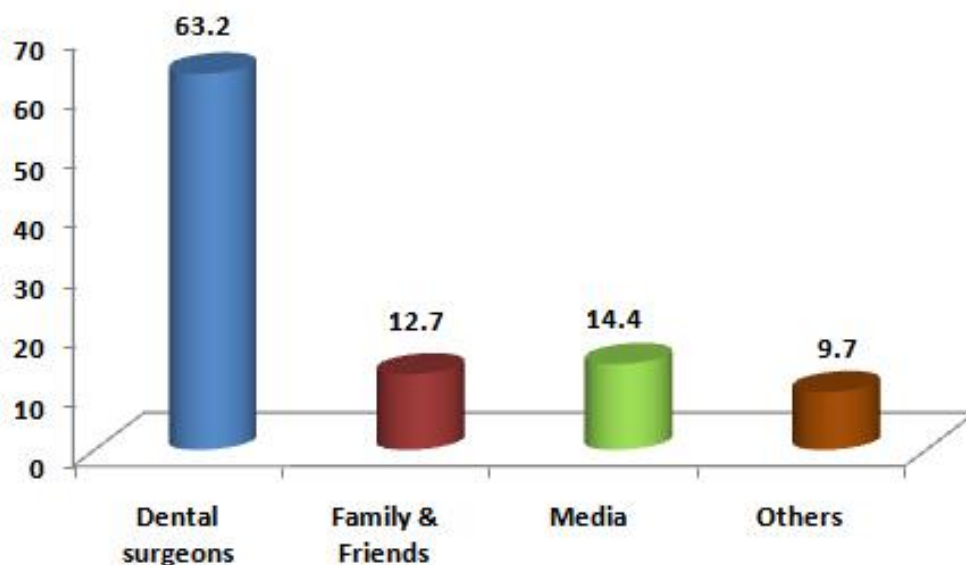
So out of 550, only 483 agreed to participate in the survey and rest were excluded as they were not willing to give consent.

Questionnaire: A self administered structured questionnaire used to know information as; have you undergone implant procedure, knowledge of implants, sources of information regarding implants, have you seen patients with implants, various problems during implant treatment etc.

Data analysis: For data analysis, each positive response was given a score '1' and each negative response was assigned as a score of '0'. Individual scores were summed up to yield a total score. The Statistical software namely SPSS version 16.0 was used for the analysis of the data. Descriptive statistics were obtained and frequency distribution, means, standard deviation were calculated using Student's t test and ANOVA test at $p < 0.05$.

Results

A total of 483 subjects were surveyed and they were furthermore all the willing participants were assorted according to different factors as sex, level of education,



Graph 1: Frequency of different sources of awareness about dental implants

occupation and age.

In the present study, it was found that 41.7% of the subjects were aware of dental implants but still few (4.1%) had undergone implant procedure. Around 20% of the participants had seen implants in their friends and family members or any other person.

Overall more than fifty percent were interested in getting knowledge regarding dental implant treatment and only 14.8% were willing to undergo implant treatment.

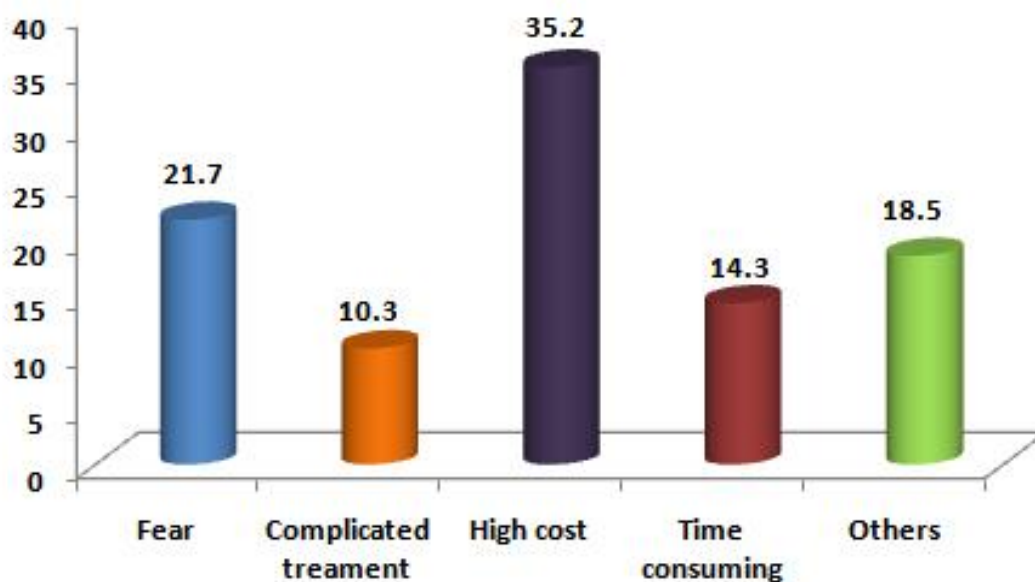
According to the sources of obtaining information regarding implants, dental professionals were the main source of information followed by media like newspaper, TV etc, friends and family members, and

than unskilled ones as shown in Table 2. A significant increase in awareness was seen with education level, where as level of awareness decreases as the age prolongs (Table 3, 4).

Discussion

Dental implant procedure has been at the forefront of clinical practice over a decade and a half now. With increasing success rate of implant treatment more patients are opting for dental implants as premier choice for replacement of missing teeth.⁶

Around one million dental implants are inserted each year, worldwide.⁷ However information which is available to the patients regarding the procedure and



Graph 2: Factors which create hindrances for implant treatment

others (Graph 1).

When it was asked regarding problems faced by the participants regarding implant surgery; high frequency of the population were not taking it due to its higher cost (35.2%). 21.7% were having fear of implant surgery. Some people have different priorities like other prosthesis (18.5%). Some mentioned that it is time consuming (14.3%) and around 10.3% do not want to go for complicated procedure (Graph 2).

Student's t test showed a significant difference regarding awareness of implants according to gender with males having a higher mean scores compared to females ($P = 0.005$) (Table 1). Similarly regarding occupation level, skilled workers were more aware

its success, is often fragmentary. This problem is more compounded in developing nations.

This survey noticed that 41.1% of the subjects were aware of dental implants. However the findings were lower than studies conducted by Zimmer et al, (1992),⁶ Berge, (2000),⁸ and Tepper et al, (2003)⁹ which reported the level of awareness as 77%, 70.1% and 72%, respectively. This might be due to low socioeconomic status and low education level among the study population. Whereas Chowdhary R et al had shown lower results among Indian population in 2010.¹⁰

Regarding the source of information our results were similar to study done by Johany SA¹¹ et al, (2010) which

also stated that most of the people get aware about implants by the dental professionals. However studies conducted by Zimmer et al,⁶ (1992), showed that media was found to be the main source of information about dental implants, while the dentists were the source for such information in not more than 17% of the cases. Similarly Berge (2000)⁸ and Best (1993)¹² also observed media as the first source followed by dentists. Akagawa et al, (1988)¹³ in their study concluded that, dentists provided not more than 20% of the information.

When questions were asked regarding hindrances of

answered that they have to come for number of visits for this treatment. Similarly many studies found that high cost is the main constraint as Kaurani P et al, (2010),¹⁴ Tepper et al, (2003),⁹ Kent, (1992)¹⁵. The high costs of the treatment indicated that there was a need for dental insurance to cover this procedure for better option among the patients in developing countries.

When the data was compared according to educational qualification of the people, it was found that all the values raised from illiteracy to graduation level. These findings were similar to study conducted by Hasnain F et al, (2009).¹⁶ In general, males had better knowledge

Table 1: Patient's awareness regarding implants as an option for replacement of missing teeth by sex

Sex	No	Mean	SD	p-value
Male	290	1.40	1.40	1.40
1.40	193	1.27	0.489	

Test used: Student't test, *Significant

Table 2: Patient's awareness regarding implants as an option for replacement of missing teeth by occupation

Workers	No	Mean	SD	p-value
Skilled	195	1.62	1.62	0.000*
Unskilled	288	1.37	0.428	

Test used: ANOVA, *Significant

Table 3: Patient's awareness regarding implants as an option for replacement of missing teeth by level of education

Education	No	Mean	SD	F - value	p - value
Nil	128	1.13	0.175	50.622	0.000*
Primary level	80	1.30	0.412		
Secondary level	160	1.41	0.565		
Graduation level	115	1.83	0.491		

Test used: ANOVA, *Significant

Table 4: Patient's awareness regarding implants as an option for replacement of missing teeth by level of education

Age	No	Mean	SD	F - value	p - value
20 to 30 years	99	1.745	0.175	74.447	0.000*
31 to 40 years	160	1.232	0.503		
41 and above years	224	1.180	0.426		

Test used: ANOVA, *Significant

implant treatment, most of subjects reported that they do not go for implants because they cannot afford. Others were having fear of the word surgery and some

and attitude than females which was in contrast with other studies Polychronopoulou et al, (2005)¹⁷ and Kawamura et al,(2005).¹⁸ Females being more

vulnerable preferred to escape the implant surgery by refusing the treatment.

Conclusion

It concludes that most of the subjects found implants treatment to be expensive and unaffordable one of the major factor against the willingness of patients to undergo this treatment. But still they were interested to know implants. Awareness among the participants was less than fifty percent and dentists were the main sources of information. It also showed the need for providing more information to the patients about this treatment modality. So, proper dental education is necessary for developing positive attitude among population regarding dental implants.

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