



**KNOWLEDGE, ATTITUDE AND ACCEPTANCE OF DENTAL IMPLANTS AMONG  
PATIENTS ATTENDING DENTAL CAMP IN DELHI SUBPOPULATION**

Anil Kumar\*<sup>1</sup>, Himanshu Sharma<sup>2</sup>, Neha Nandal<sup>3</sup> and Pallavi Prakash<sup>4</sup>

<sup>1</sup>Assistant Professor, JLN Medical College Hospitals, Ajmer.

<sup>2</sup>Endodontist, Om's Smile & Shine, Indore.

<sup>3</sup>MDS, Prosthodontics, Private Practitioner, Sonapat.

<sup>4</sup>Oral Cosmetic Surgeon, Om's Smile & Shine, Indore.

**\*Corresponding Author: Anil Kumar**

Assistant Professor, JLN Medical College Hospitals, Ajmer.

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**ABSTRACT**

**Objective:** The present study was undertaken to access the level of knowledge and attitude of patients toward implant treatment as an option for replacement of missing teeth. **Materials and methods:** An epidemiological study was conducted among 500 subjects who attended the dental camps organised by Sarita dental care in north Delhi sub population. A self-administered structured closed ended questionnaire pre-tested through a pilot survey was used in the study. The data were analyzed using the SPSS version 15.0. The Student's t-test and ANOVA test were used as test of significance. **Results:** Out of 500 subjects asked about the knowledge and attitude about implants, only 33.3% had heard of implants as a treatment modality and dentists were the main source of information. Very few people had undergone implant surgery. The level of awareness increased with education. The main factor for not having implants was due to its high treatment charges. However, they were interested to know more about the implant treatment modality. **Conclusion:** The survey was conducted in a dental camp and majority of the participants were unaware about dental implants. It also showed that need for providing more information to the patients about this treatment modality.

**KEYWORDS:** Dental implants, Knowledge, Attitude, Patients.

**INTRODUCTION**

Common oral conditions have been shown to have a substantial effect on well-being and quality of life. The loss of one or more natural teeth often results in disability, as essential daily living activities, such as speaking and eating are impaired, and also in handicap, for example, by decreased social interaction because of embarrassment associated with denture wearing.<sup>[1]</sup>

However, there are generally no accepted rules about how to estimate need, demand or utilization of prosthodontic services in most situations, since individual preferences play a very important role. Individuals with less education and low income tend to have poorer dental status because of poor finances.<sup>[2]</sup> Hence, these individuals do not even consider treatments they know they cannot afford.<sup>[3]</sup>

Also, older individuals accustomed to their conventional dentures do not show interest in implant treatment.<sup>[2]</sup> Moreover, a large number of patients experience difficulties in adapting to removable prostheses, while a smaller number are unable to accept removable prostheses at all. This may be explained by anatomical,

physiological, psychological, and/or prosthodontic factors.<sup>[4]</sup>

Functional tests have demonstrated inferior masticatory ability in subjects with removable prostheses in comparison to dentate controls.<sup>[5]</sup> Even with excellent prostheses, many patients experience difficulty with denture retention, speech and mastication.<sup>[6]</sup>

However, with the advent of new technology more restorative options have become available thereby, changing the face of demand for prosthodontic treatment. Among these, implant treatment has come into focus, since it provides excellent long-term results in rehabilitation of partially or completely edentulous patients.<sup>[7]</sup>

An implant-retained prosthesis provides greater stability, improved biting and chewing forces, and higher client satisfaction than a conventional denture.<sup>[8]</sup>

Despite of the new available restorative options, it is observed that there are substantial barriers between both need and demand and between demand and utilization.<sup>[9]</sup>

This is possibly due to the lack of information and awareness among the people.

Also the financial cost lays a question mark in the people who are aware about implants. Thus, this study was planned to evaluate the knowledge and attitude of patients toward implant treatment as an option for replacement of missing teeth.

## MATERIALS AND METHODS

This descriptive cross-sectional study was done over a period of 2 months to access the knowledge and attitude of patients toward dental implants as an option for replacement of missing teeth. A sample size of minimum 500 patients was finalized. All the patients who attended the dental camp in the period of two months and above 15 years of age were included in the study during the mentioned time period.

Data was gathered using a self-administered structured closed ended questionnaire. The questionnaire addressed information like; have you undergone treatment for dental implants, knowledge of dental implants, sources of information, have you seen implant in any other patient, choice of treatments regarding replacement of missing teeth, various constraints in implants treatment, etc.

### Data Analysis

A master chart was created in Microsoft Excel (2007) for the purpose of data analysis. The statistical software namely SPSS version 15.0 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 500 patients were contacted, of whom only 440 agreed to participate. They were further divided according to gender, education, age and location as mentioned in tables. When information was gained regarding knowledge and attitude of patients toward implants only 33.3% were aware of implant treatment and just 3.4% of them had undergone implant surgery. Similarly few participants (13.3%) had seen dental implants in any other person. Most of the participants (70.0%) had shown positive attitude in having information regarding implants and around 16.0% were willing to undergo implant procedures. Dental professionals were the main source of information regarding implants followed by friends, media (TV, radio, newspaper, internet, etc.), and others (Graph 1). Most of the subjects mentioned that high cost is associated with dental implant treatments as a common factor for rejecting this type of care. Some people have different priorities like other prosthesis. Around 18% had fear of it as implantology in many respects touches upon the most complex areas of state- of-the-art dentistry. Few

subjects had a perception that the time taken and the number of treatment visits may be a barrier (Graph 2).

A significant gender difference was observed in the knowledge and attitude, with females having a lower mean scores compared with males ( $p = 0.000$ ). Similarly, regarding area urban people showed more positive scores than rural ones ( $p = 0.000$ ). Knowledge and attitude of patients toward implants increased with increase in education and decreased with increased in age.

## DISCUSSION

The present survey gives information about subjects' knowledge and attitude related to dental implants as an option in replacing missing teeth. Around one million dental implants are inserted each year, worldwide.<sup>[10]</sup>

However, information which is available to the patients regarding the procedure and its success, is often fragmentary. This problem is more compounded in developing nations. In the present study, awareness regarding implants were among 33.3% participants which was very less than other studies done by Zimmer et al (1992),<sup>[11]</sup> Berge (2000),<sup>[12]</sup> and Tepper et al (2003)<sup>[13]</sup> which reported the level of awareness as 77, 70.1 and 72%, respectively. It could be due to low level of education in the study sample as most of the people belong to rural community. But the results of the present study were higher than Chowdhary R et al among Indian population in 2010.<sup>[5]</sup>

In the present study it was found that dentists were the main source of information regarding implants which was similar to the findings of Johany SA et al<sup>[14]</sup> (2010) and Chowdhary R et al<sup>[5]</sup> (2010). Age also showed differences in treatment wise as younger people being more enthusiastic and educated were having knowledge for this treatment in large numbers. In general, males had better knowledge and attitude than females which was in contrast with other studies Polychronopoulou et al (2005)<sup>[19]</sup> and Kawamura et al (2005).<sup>[20]</sup>

## CONCLUSION

The present study concluded that patients knowledge and attitude towards implants was below average as an option for replacing missing teeth. Dentists were the main sources of information regarding dental implants among all participants. The high treatment charge of the implants is one of the major factor against the willingness of patients to undergo this treatment. It also showed the need for providing more general and correct information to the patients about this treatment modality.

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