

KNOWLEDGE, AWARENESS AND PRACTICE OF IMPLANT PLACEMENT AMONG GENERAL DENTAL PRACTITIONERS AND IMPLANT SPECIALISTS

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ABSTRACT

With dental implants being the new state of the art choice of treatment modality for the replacement of missing teeth, there is a need for increased knowledge and awareness of dental implants amongst patients and dentists. Dentists being the primary source of information to the patients about dental implants are required to possess adequate knowledge about various aspects of dental implants, which is currently less amongst current budding dental practitioners. The survey comprising of 20 questions was distributed, out of which 100 responses were collected. It comprised of 50 general practitioners and 50 implant specialists, all ranging within the age group of 23 years to 56 years. The obtained responses were then subjected to descriptive analysis by using SPSS software version 21 and the results were obtained. The results of the survey show vast difference in the knowledge and awareness of dental implant therapy, with general practitioners lagging behind the implant specialists in various aspects of dental implant therapy.

KEYWORDS: Implants, General Practitioners, Implant Specialists, Implant Therapy, Osseointegration.

INTRODUCTION

The significance of an ideal oral health has become as crucial as the general health of the whole body collectively. People carry out various day to day activities such as eating, communicating as well as being a part of social gatherings, for which aesthetics plays an important role. Loss of tooth or multiple teeth hinders a person's everyday life not just in the aspect of causing physical impairment but also diminishes a person's quality of living and self esteem.^[1] The loss of teeth not only affects the functioning such as mastication but also affects the facial form of an individual, causing much social embarrassment. It is the dentist's role to limit the disability from further progression and provide with a viable alternative that restores the person back to his/her glory.

Over the period of time, there have been many advances in the field of Prosthodontics and the choice of treatment modality for replacement of missing teeth are many to choose from. But the ideal form of treatment for each individual changes from patient to patient, owing to multiple factors such as age, gender, physical condition, systemic illness, etc., Here, accurate judgement and decision making of which dental treatment modality to choose, rests on the dentists hands and that goes on to

decide the longevity and success rate of the prosthesis delivered.

Among all the available treatment modalities of replacement of missing teeth, implants are turning out to be the state of the art choice of alternative, to replacing missing teeth. This not only replaces the tooth in question, but also preserves the amount of surrounding bone, restores back the functions of speech and mastication and also improves the quality of living by uplifting the state of the oral health.^[2] It does not require the involvement of adjacent sound teeth for replacement of missing teeth, thus preserving the sound remaining natural teeth in the dentition.

In spite of all these superiorities, implant as a treatment modality is still lagging behind as the first choice of treatment, owing to the lack of knowledge among the patients. Dentists are the major and primary source of information about implants to most of the patients.^[3] This requires the dentists to be well versed with each and every aspect of implants and its procedures and longevity. Patient education on need for an implant and its various advantages is essential to avoid the various misconceptions and unrealistic patient expectations about an implant, which is currently the case.^[4]

Thus it becomes extremely crucial for the dentists to possess adequate knowledge and understanding about the dental implant therapy, to educate the patient, bring about a positive attitude and to carry out a successful implant treatment.^[5] The purpose of this survey was to gauge the amount of knowledge and practice of dental implant placement among the dental clinicians and implant specialists via a series of questions in the form of a questionnaire.

MATERIALS AND METHODS

The study involved a descriptive questionnaire survey which aimed at evaluating the knowledge, awareness and clinical practice of dental implant therapy. Each questionnaire comprised of about 20 self constructed questions which were all related to knowledge, awareness and practice of dental implant placement. A total of 125 questionnaires were distributed amongst general practitioners and implant specialists, out of which 100 questionnaires came back with response. 50 responses were from general practitioners (undergraduates) and the other 50 responses were from implant specialists (postgraduates).

Out of these 100 responses, 44 were female practitioners while the rest 56 were male practitioners. The age group of the practitioners ranged from 23 years to 56 years of age.

Dental interns were excluded from the study and only graduated general dental practitioners were considered. The minimum age group of the general dental practitioners was taken to be 23 years and dentists beyond the age of 60 were not included in the study. Practitioners with a diploma on implantology were also excluded from the study and only post graduate dental practitioners were considered as implant specialists.

Informed consent was obtained from study participants and the study was approved by the institutional review board.

Descriptive statistical analysis was done and the scores were calculated from the received responses from the participants. SPSS software version 21 was used to perform statistical analysis to obtain the mean score.

RESULTS

All of the 100 questionnaires were collected and were analyzed. Figure 1 shows the level of awareness about dental implant procedure amongst general practitioners and implant specialists.

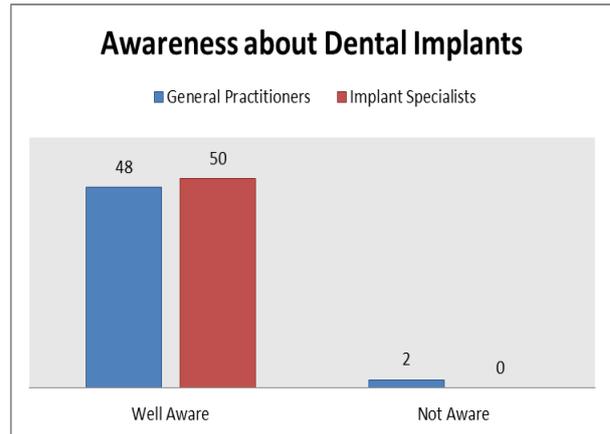


Figure 1: Awareness about Dental Implants.

The preferred choice of diagnostic aid for implant procedure is depicted in Figure 2, as per which most of the implant specialists prefer CBCT (Cone Beam Computed Tomography) over OPG (Orthopantomogram), whereas the general practitioners are more inclined towards OPG for treatment planning.

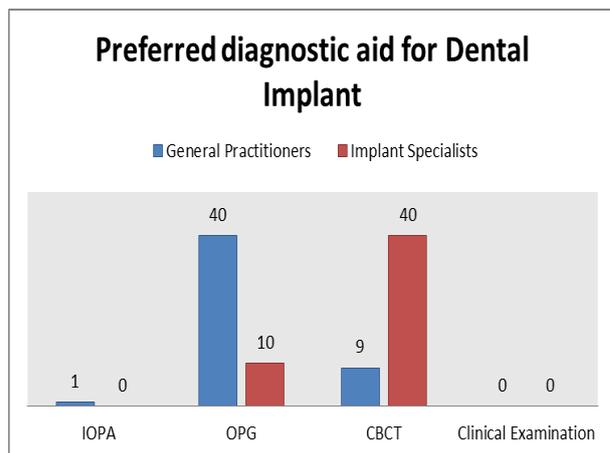


Figure 2: Preferred diagnostic aid for Dental Implant.

Implant specialists place implants on their own as opposed to majority of general practitioners, who normally rely on a consultant to do so, as shown in Figure 3.

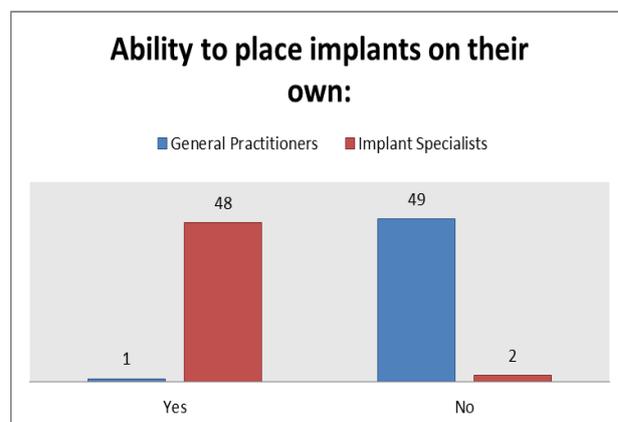


Figure 3: Consultant for Implant Placement.

Figure 4 shows that most of the implant specialists are capable of placing implants on their own whereas most of the general practitioners lack the skill and knowledge to place an implant on their own.

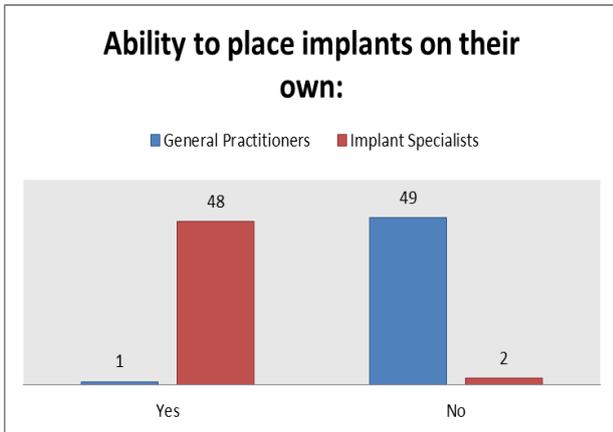


Figure 4: Ability to place implants on their own.

The best choice of an alternative to missing teeth, as chosen by the general practitioners and implant specialists is represented in Figure 5.

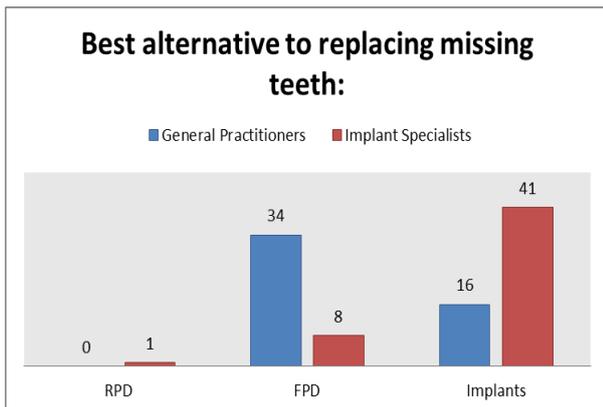


Figure 5: Best alternative to replacing missing teeth.

Figure 6 represents the order of preference, as per which the implant specialists give first priority to implant therapy, whereas general practitioners give first preference to FPD/CD (Complete Denture), over implant therapy.

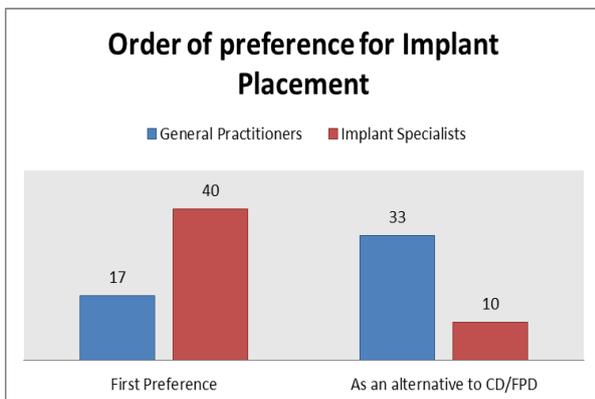


Figure 6: Order of preference for Implant Placement.

As per Figure 7, majority of general practitioners believe implants are best used to replace multiple tooth which is followed by single tooth replacement and lastly completely edentulous cases. On the other hand, the implant specialists believe implants are best suited to replace multiple missing teeth which is followed by completely edentulous cases and lastly single missing tooth cases.

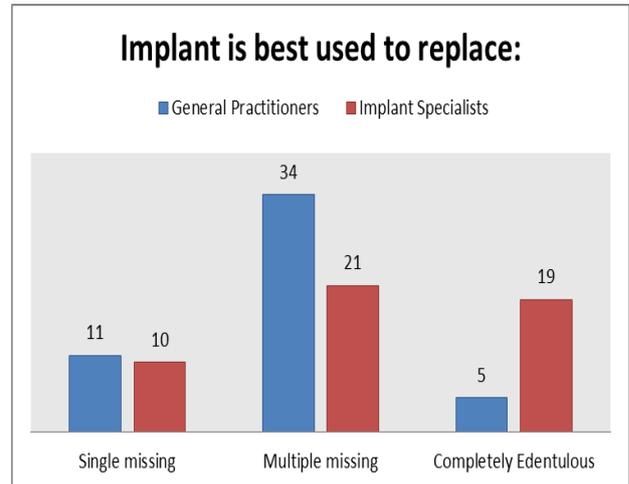


Figure 7: Implant is best used to replace.

Figure 8 depicts the longevity of dental implants which as most of the general practitioners is believed to be 5-10 years, whereas most of the implant specialists believe that the longevity of implants mainly depends on the patient maintenance of implant site, post implant therapy.

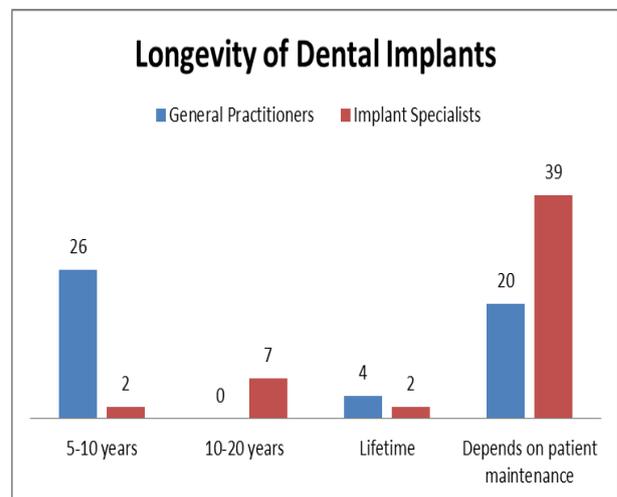


Figure 8: Longevity of Dental Implants.

Figure 9 is a representation of the reasons for the patients to refuse implant procedure, which shows that most of the implant specialists believe treatment expenses to be the major factor for patient refusing treatment as opposed to general practitioners, who believe lack of knowledge amongst patients about dental implants to be the major factor.

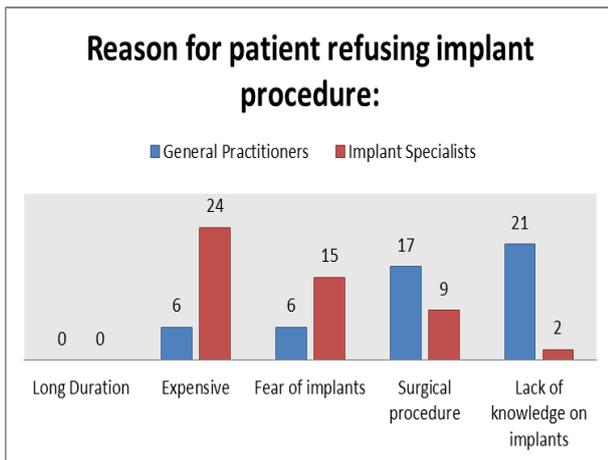


Figure 9: Reason for patient refusing implant procedure.

The reasons why a dentist could deny implant procedure to a patient is shown in Figure 10, as per which majority of implant specialists believe patient in affordability to be one of the main reasons, whereas majority of general practitioners believe lack of experience in implant placement to be one of the main reasons to rejecting implant procedure to the patients.

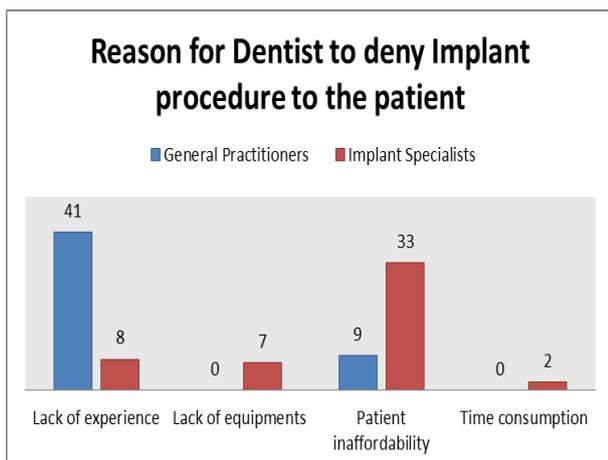


Figure 10: Reason for Dentist to deny Implant procedure to the patient.

DISCUSSION

Ever since the pioneer of the concept of osseointegration at the Toronto conference in the year 1982, dental implants as a treatment option has taken the center stage and has become one of the best and ideal choice of replacement of missing teeth in a variety of conditions.^[6] It has gone on to become the preferred treatment of choice in many of the well developed and economically stable countries, very well replacing the age old removable dentures.^[7] They not only provide longevity, but also involve less hassle once placed inside the oral cavity and are also much easier and efficient in usage as compared the removable dentures which are a bit hectic for the patients to use. Unlike dentures, implants do not require frequent intervention by the dentists to improve its fit in the oral cavity.

Numerous studies and evidences go on to show that implant supported prosthesis are much conservative and also have a longer rate of success in uncomplicated cases.^[8] They also have a psychological impact in the patient's life by enhancing their quality of living and also bolstering their self esteem.

Dentists are the prime source of knowledge and awareness regarding dental implants, amongst the general population. Yet, many of the dentists lag behind in knowledge and clinical expertise in implant placement.^[4,6] As a result of which, there isn't much practice of implant placement in clinical scenario. This can mainly be attributed to lack of opportunities and importance to implant therapy in undergraduate curriculum, which results in many graduates being unaware of the significance of dental implants over other alternatives.

The purpose of this study was to evaluate the difference in the knowledge and acceptance of dental implants as a treatment option for replacement of teeth amongst general practitioners and implant specialists.

Ramesh *et al*^[9] (2010) in his study has reported that implant therapy has been widely accepted by the patients who have undergone implant therapy as the only prosthesis or in part to support other dental prostheses. Study conducted by Giedre *et al*^[10] (2009) showed improved swallow function in edentulous patients who have received implant supported prosthesis.

Due to lack of sufficient knowledge and insufficient exposure to clinical hands on approach to implant placement in undergraduate level, the practice of implant placement is significantly low amidst general practitioners. This requires efforts to be made to increase the knowledge and awareness about implants for dentists and patients alike, to improve the quality of life.^[11] Similar study conducted by Suprakash *et al*^[12] also showed lack of sufficient knowledge amongst general practitioners to be one of the primary causes of implant therapy not being the treatment of choice in clinical practice. Furthermore, in places with resource constraints and lack of economic affordability, dentists as well as patients opt for much simpler treatment alternatives to implant placements.^[13] Treatment expenses have also been shown to be one of the main deciding factors in not choosing implant therapy as a treatment modality.

CONCLUSION

Since lack of knowledge and exposure in undergraduate level is one of the main contributing factors to the ignorance towards implant therapy, it is of paramount importance to put in adequate efforts in promoting awareness and implementing various educational programs, aiming at increasing the knowledge and practice of dental implants.

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