

Knowledge, attitude, and practice of dental implants among dental post graduates and practitioners in wardha district: A cross sectional study.

**Abstract:**

**1)BACKGROUND:** Implant dentistry has become an important aspect of the treatment for patients who are partially or completely edentulous. Despite the advancements achieved in implant dentistry since its beginning, there exists several limitations in scientifically grounded information and proven clinical experience among dental professionals and postgraduates. As a result, the actual picture was examined.

**2)OBJECTIVE:**

- To assess the knowledge of dental implants among dental postgraduate students and dental practitioners
- To assess the attitude of dental implants among dental postgraduate students and dental practitioners.
- To assess the practice of dental implants among dental postgraduate students and dental practitioners.

**3)METHODOLOGY:** An online cross-sectional questionnaire survey will be done to examine responses to 20 selected questions pertaining knowledge, attitude, and practise of dental implants among dental postgraduates and practitioners in the Wardha district. The aspect of the results that will be examined. The questionnaire will be delivered to dental postgraduates and practitioners, and their replies, as well as the questionnaire's validation, will be recorded. In the cross-sectional study, a suitable sampling strategy was used based on the replies received following the survey. The results will be determined based on Knowledge, attitude, and practice of dental implants.

**SURVEY PROCEDURE:** questions will be asked by online platform to dental health professionals with explanation of purpose of the study. The questions will be both open and close end type.

**4)EXPECTED RESULTS:** The expected result of the study will determine : Knowledge, attitude, and practice of dental implants among dental post graduates and practitioners in wardha district

**5)CONCLUSION:** Today is an era of evidence based dentistry. However, there is a substantial difference between the popularity of dental implants and the research

that supports them. This research is an attempt to minimize that difference. Because this study was done in an area where dentistry is in the air, with two large teaching dental hospitals and a large mass of dentists, it gives us a thorough realistic picture of where knowledge and practise of dental implants have reached in our field. As a result, the purpose of this study is to assess the need for a change in attitude and practise toward dental implants, as well as their evidence-based research on the subject.

**6)KEY WORDS:** Attitude, dental implants, dental post graduates, practitioner, knowledge, practice.

**INTRODUCTION:** In the field of dentistry, dental implantology is increasingly becoming a specialisation. Dentistry seems to have made its most significant advances in the previous five decades. [1] Dental implants allow for the replacement of lost teeth with sturdy, comfortable, natural-looking, and feeling artificial substitutes. While there is a substantial quantity of evidence on the survival[2] and success[3] of dental implants, as well as a rising body of evidence on the perceived benefits to patients,[4], there is a lack of information accessible on the providers' perceptions of dental implants. Dentists' knowledge and attitudes concerning a treatment technique can have a substantial impact on treatment decision-making and, as a result, "define" how oral health care is delivered and accepted. [3] As a result, the primary goal of this study was to assess and compare dental implant knowledge, attitude, and practise among postgraduate students (PGs), institution-based practitioners (IBPs), general dental practitioners (GDPs), and institution-based nonpractitioners (IBNPs), as well as to assess the impact of dentists' factors (years of experience, implant training, and specialisation) on the same.

**BACKGROUND/RATIONALE:**The findings of this study will help dental care professionals to evaluate the need of Implementation of attitude and practice towards dental implants and their evidence based knowledge about the same .

**OBJECTIVE:**

1. To assess the knowledge of dental implants among dental postgraduate students and dental practitioners .
2. To assess the attitude of dental implants among dental postgraduate students and dental practitioners.
3. To assess the practice of dental implants among dental postgraduate students and dental practitioners.

**METHOD:**

**Sample selection-**

Sample size is determined using the given formula

$$\sqrt{n} = \frac{z_{\alpha/2} \times \sigma}{E}$$

where,

$\sigma$  = previous expected values=20

E =desired Margin of error = 5

$z_{\alpha/2}$  , confidence interval of 90%,  $z = 1.65$

n = sample size estimated 350

### **INCLUSION CRITERIA:**

- Dental professionals.

### **MEASUREMENT:**

The questionnaire is arranged according to examine respondents' socio-demographic characteristics, dental service specifics, and a self-assessment of service quality. The items used in the self-assessment of service quality will be graded using a five-point Likert Scale [13]. Participants will be asked to complete a questionnaire in a particular period and demographic information was included at the start of the survey.

Bias: All the potential sources of bias has been removed.

Quantitative variables: all the demographic details and the questions in relation to the questionnaire will be recorded with the help of electronic forms and record in the excel sheet.

Statistical methods: statistical software of SPSS version 22 has been used for the analysis.

Descriptive statistics and frequency distribution will be done for recording the demographic details and responses of the questionnaire. Pearsons correlation and chi- square analysis is done to evaluate the association between age, gender and socioeconomic scale with the perception of the patients towards the selection of dentist.

**EXPECTED OUTCOMES/RESULTS:** The expected result of the study will determine : Knowledge, attitude, and practice of dental implants among dental post graduates and practitioners in wardha district.

**KEY RESULTS:** Dental professionals, Attitude, dental implants, dental post graduates, dental practitioner, knowledge, practice.

**GENERALIZABILITY:** The study has a good external and internal validity.

**DISCUSSION:** The absence of natural teeth is a health issue that not only compromises function but also has a significant impact on a patient's appearance and psychological well-being. Since the dawn of time, different attempts have been performed to replace missing teeth with prosthetics that function and look like natural teeth. Dentures and fixed bridges are used to attain this result. Dentures and fixed bridges, on the other hand, have certain intrinsic issues, such as compromising adjacent good teeth and accumulating food debris and plaque. . Moreover, replacing lost teeth with dental implants provides long-term answers to the challenges. As a result, dental implant therapy has become a very predictable treatment for edentulous patients. It has become a necessary component of both highly specialised dentistry.

The current study found that postgraduates had the most implant dentistry knowledge. They are also theoretically well-versed in implantology, as it is now part of the postgraduate curriculum. However, there is no literature to back up this idea, thus more research is needed in this field. However, postgraduates' practice and skills in implant placement do not correspond to their knowledge. As a result, new training courses should be established, and postgraduates should be required to attend them in order to put their expertise into practice.

Taking attitude and practice into account, this study found that IBP had a very positive attitude and that the majority of them practice dental implants due to regular patient inflow and the patient's economic consideration being of the utmost priority in an institution. GDPs, on the other hand, had a negative view of dental implants. This observation was thought to be in line with a 2007 study by Akeredolu et al.[8] who found that a lack of training courses and the economic status of patients led to poor implant results and a negative attitude toward the procedure among GDPs . However, it was discovered in this study that these two factors posed the least threat, implying that GDPs must be motivated and their attitudes toward dental advancements must change. The gap in practice between IBPs and nonpractitioners can be narrowed by providing nonpractitioners with more knowledge and practice through various implant education programmes, hands-on training, and training courses.

This study suggests that characteristics such as the dentist's years of experience, implant training, and postgraduate training have an impact on dental implant knowledge, attitude, and practice. The study found that individuals with 5 years of experience had the best knowledge, the most positive attitude, and the most implant practice. This difference in years of experience is consistent with Eckert et al 2012 's study, which found that younger prosthodontists expressed a stronger willingness to surgically insert implants. This clearly demonstrates that people who have worked in

the dental field for a long time still favour conventional procedures for replacing missing teeth. As a result, dentists with many years of expertise should broaden their views in order to keep up with the latest innovations in our field.

Implant training has been found to be an additional aspect that improves understanding, promotes a positive attitude, and encourages implant practice. In terms of knowledge, attitude, and results, people who have received implant training clearly have an advantage over those who have not. This is in line with the findings of a 2013 study by Lang-Hua et al. A study conducted by Maalhagh-Fard et al. in 2002 found that graduates who had completed the elective programme in implant dentistry had a better favourable link with offering and restoring implants.

According to the findings, the majority of IBPs were competent enough to place implants and thus did not require any implant training, whereas postgraduates believed they were least competent to place implants despite having the most knowledge of the subject and thus required implant training. The reason for this discrepancy could be that postgraduates have less exposure to practicing implants; therefore, this should be included in the curriculum.

This study also reveals that postgraduate specialisation has an impact on implant knowledge, attitude, and practise. Prosthodontists have the best knowledge, skill, and practise for implants because they are primarily concerned with prosthetic rehabilitation of partial and complete edentulous patients, which involves diagnosis and treatment planning. According to Eckert et al 2012 study, the majority of prosthodontists employ implant-supported prosthesis in their practice. Oral surgeons and periodontists are closely following this because they are the pioneers in putting a prosthodontist's strategy for dental implants into action.

The question of which specialisation the study of implants belongs to has always been a source of debate. It is, nevertheless, regarded as a multidisciplinary approach. As a result, institutional efforts should be made to extend implants' knowledge, attitude, and practise to other streams as well.

**CONCLUSION:** : Today is an era of evidence based dentistry. However, there is a substantial difference between the popularity of dental implants and the research that supports them. This research is an attempt to minimize that difference. Because this study was done in an area where dentistry is in the air, with two large teaching dental hospitals and a large mass of dentists, it gives us a thorough realistic picture of where knowledge and practise of dental implants have reached in our field. As a result, the purpose of this study is to assess the need for a change in attitude and practise toward dental implants, as well as their evidence-based research on the subject.

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