

# A Cross-Sectional Survey of Patients Perception and Knowledge Regarding Dental Implants in Pakistan

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## ABSTRACT

**Objective:** The purpose of this study is to determine the perception and knowledge regarding dental implants among patients admitted to hospital.

**Study Design:** Cross-sectional/ Descriptive study

**Place and Duration:** Islamic International Dental Hospital, Islamabad and Rawal Institute of Health Sciences, Islamabad for the duration of six months from September 2021 to February 2022.

**Methods:** There were 160 patients of both genders were included in this survey. Presented patients had age between 18-70 years. After obtaining informed written consent, detailed demographics of each patient were recorded. Standardized self-explanatory questionnaires were given to patients during regular dental visits to assess their knowledge, source of information, and attitude about dental implants. SPSS 22.0 was used to analyze all data.

**Results:** Among 160 cases, majority of the cases 90 (56.3%) were females and 70 (43.7%) were males. 27 (16.9%) were aged between 18-28 years, 25 (15.6%) had 29-38 years, 45 (28.1%) had age 39-48 years, 20 (12.5%) had age 49-60 years and 43 (26.3%) had age >60 years. 42 (26.3%) had dental implants among all cases. There were 65 (40.6%) cases those were aware from the dental implants, among these dentists, friends and family members provided awareness. Dental implant therapy was most often described as being expensive, advance, and scary. Several of the individuals thought implants were painful and unsafe, although these perceptions were significantly less prevalent. Positive feedback was also received from patients in whom perception was high esthetic, improved mastication, no failures and high success rate.

**Conclusion:** Most study respondents lacked dental implant competence. High cost prevents many from choosing dental implants. In developing nations like Pakistan, reducing costs would make dental implants more affordable for poor people.

**Keywords:** Expensive, Dental Implants, Scary, Poor-socioeconomic status, Dental failures

## INTRODUCTION

Dental caries and periodontal disorders are important reasons of lost teeth. Other causes include traumatic tooth loss or congenitally absent teeth. Missing teeth cause poor mastication, face support, speech problems, and aesthetics. [1] If missing teeth are not replaced, it may result in neighbouring teeth drifting and supra emergence of opposing teeth into the vacant tooth space, making treatment harder in the future. [2,3] Tooth loss causes psychological stress that demands extensive social and psychological adaptation. To avoid these difficulties, missing teeth should be replaced as soon as feasible. [3,4] To replace missing teeth, two choices are available: detachable partial dentures and fixed dental prostheses. Fixed prosthesis may be a tooth-supported partial denture or an implant-supported prosthesis. [5,6]

Dental implant restorations are the best treatment choice for partially or fully edentulous individuals, according to long-term clinical trials. In modern dentistry, dental implants are a prosthetic treatment method for totally or partially edentulous individuals. [7-9]

Proven benefits of implant prosthesis, including enhanced mastication, bone preservation, phonetics, and aesthetics, led to broad popularity and acceptance of dental implants among dental professionals. [10] Long-term clinical research have established the efficacy of implant-supported prostheses. Dental implants have universal recognition and appeal in the dental community. [6] In 2010, Eklund SA's article on trends in dental treatment in the U.S. indicated increased use of dental implant therapy. [7]

Pakistan's literacy rate has dropped from 60% to 58%, according to the economic report of Pakistan. Despite this, most urban populations of well-educated individuals [11] would choose implant supported prostheses as a replacement option if they were informed of this treatment method. Globally, understanding about dental implant treatment in developing nations is quite low [12].

Several studies have shown patients' awareness of dental implants. A survey by Zimmer et al. [13] indicated a high awareness rate and good opinion regarding oral implant therapy. In a study conducted in Saudi Arabia, Al-Johany et al. revealed that 66.4% of patients were aware of dental implants and that

relatives and friends were the main source of information for 31.5% of patients [14]. In another study in Iran by Faramarzi et al., 60% of the individuals knew about dental implants and dentists were the main source of information (42%). Awooda et al. discovered that 68.5% were aware of dental implants, and the main source of knowledge was relatives and friends (38.2%) [15]. The present study aims to evaluate the amount of knowledge, source of information, and attitude toward dental implants as a therapeutic option.

## MATERIAL AND METHODS

This Cross-sectional/ Descriptive study at Islamic International Dental Hospital, Islamabad and Rawal Institute of Health Sciences, Islamabad for the duration of six months from September 2021 to February 2022 and comprised of 160 patients. After obtaining informed written consent, detailed demographics of each patient was recorded. Patients <18 years and those were not agreed for written consent not included in this study.

A patient's familiarity with dental implants was gauged with the use of an explanatory questionnaire. There was a special questionnaire made to find out things like age, gender, education, awareness of dental implants as a treatment option, patient perceptions of dental implants (both positive and negative), and where patients heard about dental implants. All patients were selected at random using a nonprobabilistic convenience sampling technique. The questionnaire was developed in both English and Urdu to accommodate a wide range of patients' linguistic abilities. Patients who had not been given any special training were interviewed after completing a questionnaire. It took about fifteen to twenty minutes to complete the survey. All data were analysed with SPSS 22.0.

## RESULTS

Among all cases, 27 (16.9%) were aged between 18-28 years, 25 (15.6%) had 29-38 years, 45 (28.1%) had age 39-48 years, 20 (12.5%) had age 49-60 years and 43 (26.3%) had age >60 years. 42 (26.3%) had dental implants among all cases. (figure 1)

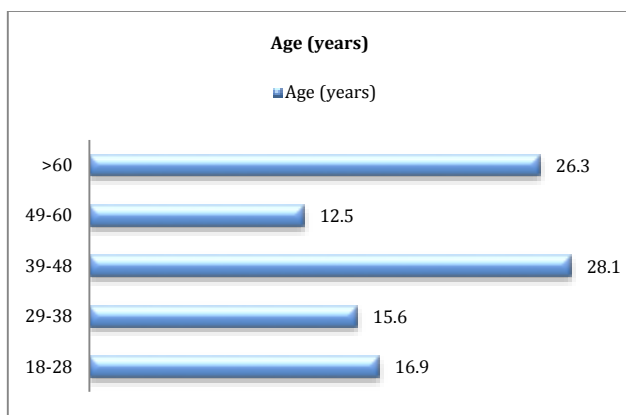


Figure-1: Age distribution among presented cases

We found that majority of the cases 90 (56.3%) were females and 70 (43.7%) were males. There were 101 (63.1%) patients had rural residency and 59 (36.9%) were from urban area. Poor socioeconomic was found in 115 (71.9%) cases and 45 (28.9%) were from middle and upper class. 85 (53.1%) patients were educated. 42 (26.3%) had dental implants among all cases. (table 1)

Table-1: Presented patients with baseline details

Variables	Frequency	Percentage
Gender		
Male	70	43.7
Female	90	56.3
Place of living		
Rural	101	63.1
Urban	59	36.9
Poor-Socioeconomic status		
Yes	115	71.9
No	45	28.1
Educated		
Yes	85	53.1
No	75	46.9
Dental Implants		
Yes	42	26.3
No	118	73.7

There were 65 (40.6%) cases those were aware from the dental implants, among these dentists, friends and family members and magazines/books provided awareness.. (table 2)

Table-2: Awareness and knowledge among patients of dental implants

Variables	Frequency	Percentage
Awareness		
Yes	65	40.6
No	95	49.4
Reason of awareness		
Dentists	22	13.8
Friends	17	10.6
Family Members	20	12.5
Magazines/books	6	3.8

Dental implant therapy was most often described as being expensive, advance, and scary. Some of the individuals thought implants were painful and unsafe, although these perceptions were significantly less prevalent. (table 3)

Table-6: Perception of dental implants among unaware patients

Variables	Frequency (n=95)	Percentage
Perception		
Expensive	60	63.2
Advance	15	15.8
Scary	8	8.4
Painful	7	7.4
Unsafe	5	5.3

## DISCUSSION

Over the past decade, dental implants have risen to prominence as a first-choice method for replacing missing teeth. The excellent success rate of dental implants makes them the go-to treatment for tooth loss. Patients, however, are less informed about this great treatment option, especially in underdeveloped countries like Pakistan, where literacy rates are low and access to high-quality dental care is limited.

In our study 160 patients had age 18-70 were presented in this study. Among all cases, 27 (16.9%) were aged between 18-28 years, 25 (15.6%) had 29-38 years, 45 (28.1%) had age 39-48 years, 20 (12.5%) had age 49-60 years and 43 (26.3%) had age >60 years. 42 (26.3%) had dental implants among all cases. These were comparable to the studies conducted in past.[16,17] We found that majority of the cases 90 (56.3%) were females and 70 (43.7%) were males. There were 101 (63.1%) patients had rural residency and 59 (36.9%) were from urban area. Poor socioeconomic was found in 115 (71.9%) cases and 45 (28.9%) were from middle and upper class. 85 (53.1%) patients were educated. 42 (26.3%) had dental implants among all cases. These demographics of included patients were comparable to the recent research.[18] Participants' level of assurance in their understanding of fundamental dental implant concepts was low in our study. In the vast majority of cases, patients opt for implant treatment on their own. The patient needs to be given complete information about implants and alternative treatment to patients so that they can make an informed choice. [19]

The dentists themselves were the most common information source (at 13.8%), followed by friends and family. Similarly, Kumar et al.[20] found that dentists were patients' most often cited information source (38.2% of the time). Studies conducted by Johany SA et al .[21] Many people's first impressions about oral implant therapy are that it's too expensive and/or too scary to have implants. People in the United States and Norway have a far more favourable viewpoint on implant therapy and are more accepting of it as a therapeutic option, in contrast to the prevalent negative views held by many around the world [22,23]. The durability of implants is another major worry for patients. This is a sentiment echoed by participants in other research [22]. Patients' implant therapy knowledge gaps may be attributable to the credibility of the information they've been given. We found that more than half of those who had never had implants relied on print media like periodicals and books to learn about the topic. Public anxiety regarding the efficacy and safety of medical treatments is exacerbated when the media focuses on malpractice or high-profile implant failures [23]. In our study, dental implant therapy was most often described as being expensive, advance, and scary. Some of the individuals thought implants were painful and unsafe, although these perceptions were significantly less prevalent.[24]

Lack of information about the upkeep, longevity, and systemic effects of dental implant therapy is also investigated in this study. In his survey of 527 people, CO et al[25] found. Among the adult population in Turkey, 16% held the view that their dental implants will survive forever, followed by a longevity of >10 years. Similar results were found by Sawal P et al[26], with 58.9% of respondents believing that the implant treatment would last a lifetime and necessitating more stringent oral hygiene practises than would be necessary to maintain natural dentition. If the meeting were to take place in secret, the overall scenario might change. This study demonstrates that the primary reason for low utilisation of this treatment method is a lack of community awareness campaigns and a lack of resources among the general population. To verify the present findings, a multicenter investigation using a representative sample of the actual population is required. Consequently, this level of general knowledge about implant retained prosthesis highlights the necessity of giving greater attention to the said area in order to advance dentistry in Pakistan.

## CONCLUSION

Most study respondents lacked dental implant competence. High cost prevents many from choosing dental implants. In developing nations like Pakistan, reducing costs would make dental implants more affordable for poor people.

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