

DENTAL PATIENTS' KNOWLEDGE AND ATTITUDE TOWARDS DENTAL IMPLANTS AS A FIXED PROSTHESIS

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ABSTRACT

This study was conducted to determine the knowledge and attitude of public towards dental implants as a fixed prosthesis option, in Pakistan. A questionnaire consisting of 11 open and close-ended questions was used to determine the level of awareness, knowledge and attitude towards dental implants as a fixed prosthesis. A total of 80 participants took part in the survey. Out of 80 participants, there were 19 (23.8%) males and 61 (76.3%) females. With majority (65.0%) in the age group of 20-29 years. There were 67.5% participants who thought implants were the best option to replace missing teeth. While only 53% of the subjects felt, they had knowledge of dental implants. The main source of knowledge regarding dental implants was dentists, followed by electronic media. The chief reason of not opting dental implants as a prosthesis was its high cost (35.2%). Hence, it can be concluded that there is a need for raising more awareness among the general population regarding implants as a fixed prosthesis to improve the quality of life in Pakistan.

Key Words: Patient knowledge, Dental Implants, Teeth restorative options, Awareness.

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INTRODUCTION

The use of dental implants for the replacement of missing teeth has been increasing ever since the concept of osseo-integration has been identified¹. Recent publicity about the benefits of dental implants has generated considerable interest both among dental professionals and public². Majority of patients treated with implant supported prosthesis have reported improvement in their quality of life and self-confidence, along with psychological benefits.³ With the advancements in knowledge, patients' requirements such as aesthetics and functional comfort are becoming more important in replacement of missing teeth⁴⁻⁷. Several prosthodontic options for the replacement of lost teeth are

available, and the acceptability of these options depend on the patient's education, economic status, cultural background and age⁸. A limited number of people opt for dental implants as a fixed prosthesis in developing countries^{3, 8-11}. Information is also scarce on the level of awareness, knowledge, attitude, and acceptance of dental implants as a prosthetic choice for absent teeth in Pakistan. Therefore, the aim of the present study was to determine the awareness, knowledge, and attitude of general population towards dental implants as a fixed prosthetic, of Lahore, Pakistan.

MATERIALS AND METHODS

This cross-sectional epidemiological study was conducted over the course of two months (May 2019 to July 2019). A validated, self-designed questionnaire (Figure 1) was prepared to collect demographic data and information regarding public knowledge and attitude towards dental implants as a treatment modality. The questionnaire was converted to an electronic form using Google Forms (Google Forms, 2019; a free web-based survey generator). The integrity of the questionnaire was maintained by keeping the options and answering fields, as they would appear in paper format. A link to the questionnaire was generated and distributed through social media platforms to the general population. A total of 130 questionnaires were sent out, and

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80 response were received. The study's methodology was reviewed and approved by the Institutional Review Board (IRB) of the Akhtar Saeed Medical and Dental College, Lahore. The questionnaire detailed the aim of the study, its design, and the expected utility of its results, thus informed signed consent was not required and participants participated voluntarily. The data obtained were compiled, tabulated, and subjected to statistical analysis using SPSS version 25. Data were expressed as absolute frequencies and percentages.

RESULTS

The sample comprised of 80 respondents; 19 (23.8%) males and 61 (76.3%) females. The age range of the participants was 20–75 years, with majority (65.0%) in the age group of 20-29 years. The level of education

of 73 (91.3%) participants was bachelor's degree or higher.

More than two-third (67.5%) of the participants thought that implants were the best option to replace missing teeth (Figure 2). Regarding the sources of information about various dental prosthesis options, 60% of the respondents received information from their dentists and rest from friends and family.

About one in every four (26%) participants did not know about dental implants or were poorly informed, while about half (53%) felt well informed or moderately well informed about dental implants. Only 20% reported that they were very well informed about the dental implants.

Regarding the expected lifespan of an implant,

THE SURVEY QUESTIONNAIRE

Age:

Gender:

Level of education:

1. Do you feel it is necessary to replace the missing teeth?

a. Yes b. No

2. What do you think are the options to replace the missing teeth?

a. Removable Dentures b. Fixed dentures/bridges c. None

3. From where have you heard about dental implants?

a. Dentist b. Relatives and Friends c. Internet d. T. V/Radio e. Newspaper/magazine/articles/journals.

3. How well informed do you feel about dental implants?

a. Very well b. Well c. Moderately well d. Poorly e. Not at all

4. Are you willing to undergo dental implant treatment if needed?

a. Yes b. No

5. What is the reason for you not to opt for dental implants?

a. High Cost b. Lack of knowledge c. Surgery d. Long treatment time

6. Where in the mouth do you think dental implant is placed?

a. Jaws b. Gums c. On the adjacent teeth d. Don't know

7. What do you think is the biggest advantage of dental implant supported dentures/bridges?

a. Fixed replacement is better. b. Comfortable and Good in function

c. Looks better. d. Improved quality of life.

8. How long do you think a dental implant lasts for?

a. Up to 5 years. b. Up to 10 years. c. Up to 20 years. d. Lifetime

9. Do you feel dental implant needs special care and hygiene?

a. No – Cleaned like natural teeth. b. Yes – More care than natural teeth.

c. No – Need less care than natural teeth

10. How do you rate the treatment charges which are involved in this procedure?

a. Affordable. b. Not affordable

11. How do you rate the treatment charges?

a. Affordable. b. Not Affordable

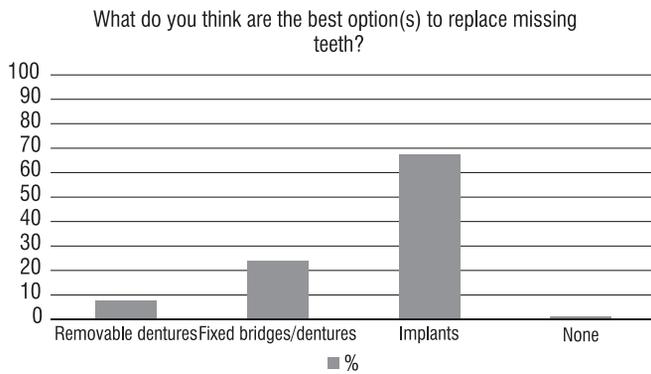


Fig 1: Perception of best treatment option among the general population

(41.3% participants felt that implants lasted a lifetime, while 25.0% felt that the average lifespan for implants was 10 years, with some felt that the lifespan stretched over 20 years. Few participants (18.8%) thought that the life span was up to 5 years only.

When asked about the care to be taken for maintaining implants, 42.5% participants felt that implants needed more cleaning than natural teeth, while the rest felt that implants required the same amount of care as natural teeth.

A great majority (90%) of the participants was willing to opt for dental implants if needed. When asked about the possible primary reason for them to opt out of the dental implant choice, 61.3 % pointed towards high cost while 27.5% mentioned surgical procedure to be the primary reason. Long treatment plan and lack of knowledge about dental implants were also the reason for some to opting out of the treatment.

DISCUSSION

Dental implants are a leading choice for teeth replacement in dentistry for over last ten years. Owing to constant increase in success rates of dental implant prosthesis, number of patients opting for dental implants has increased.¹² Around one million dental implants are inserted each year worldwide.¹³ However, information available to the patients regarding the procedure and its success is often insufficient¹⁴, especially in developing countries. The present survey shows that awareness regarding dental implants among the participants was 50%. However, higher numbers have been reported in a study that Zimmer et al, (1992),¹² Berge, (2000),⁹ and Tepper et al, (2003)¹⁵ conduct which were 77%, 70.1% and 72%, respectively. Another study in Austria reported the awareness level of 71%.¹³ The possible reason of this difference in awareness may be owing to comparatively less affordability or lesser education of the selected study group. Chowdhary R et al¹¹ also showed similar results of lesser awareness regarding dental implants as dental prosthetic option

in a study conducted in Indian in 2010.

As for the sources of knowledge about dental implants, the results of our study are very similar to a study conducted by Johany SA et al¹⁶, who also found that the most common source of dental implant awareness were dentists. However, this is in contrast to the study conducted by Zimmer et al¹² who reported electronic media as the main source of information on dental implants, while dentists accounted only 17% as an information source. Findings of Zimmer et al¹² are in accordance with Berge⁹ and Best¹⁷ who also also found media as the number one contributing source towards the knowledge about dental implants, followed by dentists. Akagawa et al,¹⁸ also concluded in their study that, dental professional contributed around 20% towards knowledge about dental implants.

In this study, 33 (41.3%) participants felt that implants lasted for a lifetime, while 20 (25%) felt that the average lifespan for implants was 10 years. This is in contrast to the studies conducted by Tepper et al.¹⁵, Akagawa et al.¹⁸, and Tomruk et al.¹⁹, where almost 46%, 28%, and 33% of the participants felt that implants lasted for a lifetime.

Most of the participants were unable to opt for dental implants because of its high cost. While others showed to have fear of surgery and some were hesitant because of duration of this treatment. Many previous studies have also found high cost as the main reason for not opting for dental implants.^{15,20,21} Governmental assistance is needed towards provision of this treatment option to general public. Dental insurance companies also can play their part. This study highlights the need for raising awareness among patients about this fixed prosthesis to improve quality of life in developing countries. It is also crucial to build an encouraging perception among general population of dental implants. Campaigns should be conducted for raising more awareness regarding dental implants, and counseling centers in outpatient departments of dental clinics and dental colleges should play an active role in providing needed information to the patients. Special effort should be made by the public sector to lower the cost of the implants so that they can be made affordable to all.

CONCLUSION

There is a need to increase awareness among the patients about dental implants. High cost is a major factor for the patients in not opting for dental implants.

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