

## Perception, Attitude and Reluctance regarding Dental implants

Naseer Ahmed<sup>1</sup>, Maria Shakoor Abbasi<sup>2</sup>, Quratul-Ain-Mariam<sup>3</sup>, Qasim Abbas<sup>4</sup>, Afsheen Maqsood<sup>5</sup>

### ABSTRACT

Dentistry has recorded a remarkable progress in recent years, dental implantology has been emerged as its important component. The teeth can be replaced with substantial comfort and aesthetics using dental implants and it has been successful in the long run. To achieve optimal results the knowledge, attitude and reluctance towards implants at both dentist's and patient's level is of paramount importance. Therefore, this short communication was carried out to highlight the current knowledge, attitude and reluctance towards dental implants among general public and dental practitioners. The article projected two investigations that had been carried out with a lap of five years at different dental hospitals and allied institutes. The articles were questionnaire based studies including both male and female participants of all ages. We concluded that the general public were lacking awareness towards dental implants and their access was limited to this treatment due financial constraints. Dentists were the prime source of information providers. Additionally, dentists revealed highest level of knowledge regarding recent and conventional trends of dental implants. But despite of this, the attitude was lacking and confidence in placement of implant were deficient.

**Keywords:** Attitude, Dental implants, Dental practitioners, Implant perception

### How to Cite This:

Ahmed N, Abbasi MS, Mariam QA, Abbas Q, Maqsood A. Perception attitude and reluctance regarding dental implants. *Isra Med J.* 2021; 13(1): 60-62.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### INTRODUCTION

The restoration of teeth is an utmost desire of patients with missing teeth<sup>1</sup>. Removable dentures serve a viable alternative option for restoration of missing teeth, but unfortunately it did not get a worldwide acceptance amongst different strata of population<sup>2</sup>. After the introduction of dental implants in the field of dentistry the

1. Associate Professor of Prosthodontics, Altamash Institute of Dental Medicine, Karachi, Pakistan.
2. Assistant Professor of Prosthodontics, Altamash Institute of Dental Medicine, Karachi, Pakistan.
3. Registrar of Prosthodontics, Altamash Institute of Dental Medicine, Karachi, Pakistan.
4. Assistant Professor of Prosthodontics, Jinnah Medical and Dental College, Karachi, Pakistan.
5. Assistant Professor of Oral Pathology Altamash Institute of Dental Medicine, Karachi, Pakistan.

### Correspondence:

Naseer Ahmed  
Associate Professor of Prosthodontics, Altamash Institute of Dental Medicine, Karachi-75500, Pakistan.  
Email: [naprosthodontist@gmail.com](mailto:naprosthodontist@gmail.com)

Received for Publication: March 16, 2020

1<sup>st</sup> Revision of Manuscript: July 13, 2020

2<sup>nd</sup> Revision of Manuscript: November 22, 2020

3<sup>rd</sup> Revision of Manuscript: November 28, 2020

4<sup>th</sup> Revision of Manuscript: December 03, 2020

Accepted for Publication: December 13, 2020

concept of extension for improving the prosthesis or restoration fit and acceptance is omitted<sup>3</sup>. Ever since its emergence, the dental implants have evolved in terms of material, shape, sizes and protocols of placement<sup>4</sup>. The dental practitioners have to cope with the advancements in the field of implantology and convey the evidence based findings to the general public further on to improve treatment modalities and option list. Therefore, a need for assessing the practices, perception and reluctance towards dental implants is essential amongst general public and dental practitioners.

### METHODOLOGY

The cross-sectional observational studies carried were conducted by using a well-structured and validated questionnaire. The questionnaires had three sections identifying demographic details along with knowledge, attitude and practices of participants regarding dental implants. Nonprobability convenience sampling technique was used to recruit participants. The pilot studies were conducted at various dental hospital and colleges of Karachi. Our target was both male, female dental practitioners and general public inclusive of all ages. The participants were asked to fill the questionnaire according to the options of their choice. The data collected were finally entered into SPSS 25 for descriptive statistical analysis.

### RESULTS

According to the two research carried out on perception, practices, attitude and reluctance regarding dental implants. In the initial study out of the total 100 participant's majority were

under 40 years age. 28 (28%) patients were aware of dental implant as a treatment option. The awareness level was more in females (19%) as compared to males (9%). Furthermore, 72% of patients were unaware about dental implants as a treatment option for missing teeth. In 15% of the participants, awareness was provided by dental practitioners, 7% got to know from friends, while information from media and other sources was 6%. The concept of awareness of patients about function of implant were majorly mastication 17% and phonetics with aesthetics collectively 9%. Financial constraints or cost and anxiety related to the procedure of dental implants were the major reason of reluctance amongst the patients<sup>5</sup>. Hence it was stated that the awareness of dental implant as a replacement option indicates low awareness among the general public. The dental practitioners were amongst the scarce information providers and an emphasis on providing information to general public through healthcare providers and necessary steps to enhance awareness in this regard from government bodies were highlighted.

Keeping the above findings as future direction for further research, a pilot study was carried out on 105 participants. The focus was given to the attitude and knowledge level assessment of dental practitioners. The majority 81% of dental practitioners were aware of appropriate implant material that is titanium. 57.9% had knowledge about all the types of dental implants. 55.9% of the dental practitioners were aware of the screw-shaped dental implants, whereas only 30.3% knew about the various surface modifications. 46.1% dental practitioners were aware of all the possible implant placement approaches and 49.3% believed that the distance between two dental implants to be 3mm and distance between a dental implant and a natural tooth to be 1.5 mm. 88% of the dental practitioners believed that implant supported prostheses need more oral hygiene maintenance. 76% of the dental practitioners claimed that dental implants have certain biomechanical complications. Whereas 67.8% knew about the Branemark's theory of osseointegration. The overall awareness and attitude level were 71.23%. Moreover, 88.8% attended lectures and seminars on dental implants for knowledge gain while 28.9% received implant hands on trainings. Whereas 29% felt competent enough to place an implant, as described in (Table-I).

**Table-I: Characteristics of included studies (N=205)**

Participants	Awareness and Attitude n%	Source of information	
		Dentist or seminars and lectures %	Other%
General Public (n=100)	28 (28%)	53.57	46.42
Dental Practitioners (n=105)	68 (71.23%)	88.81	28.94

## DISCUSSION

The findings in this study were in accordance with numerous research conducted on dental implants i.e. Parr et al which pointed out titanium as an inert and suitable dental implant material<sup>6</sup>. Ramanurkaite et al and Goulart et al suggested 2mm

to 4 mm of normal inter-implant and implant to natural tooth distance<sup>7,8</sup>. Revilla et al described that with increased use of dental implants comes an increased risk of complications<sup>9</sup>. Therefore, the dental practitioners should be aware of management and diagnosis of complications. Sharma et al emphasizes the need of maintaining oral hygiene with dental implants<sup>10</sup>. Ferro et al suggested focus on the importance of implant based hands on training and courses<sup>11</sup>. Schonwetter *et al* in agreement to our study revealed that their respondents also did not feel confident enough to place an implant<sup>12</sup>.

In our study despite of adequate knowledge amongst dentist, the attitude was lacking and confidence in placement of implant were deficient. Thus, it is important that the curriculum, teaching standards, the materials and methods regarding dental implants need to be reviewed and more exposure of hands-on workshops should be provided not only for the fresh graduates but also the undergraduates with their clinical learning. Moreover, an emphasis on providing information to general public through healthcare providers and necessary steps in this regard from legislative bodies are needed.

The studies included in this article were pilot projects and carried out on a smaller sample size. Also, the findings obtained were subjective based and depends on participants recall ability and honesty which can be subjected to recall bias. The research we carried out did not include the respective predictors of success as well as failure of an implant. Despite these limitations our study provides valuable information about awareness, attitude, practice and reluctance towards dental implants by general public and dentists. Moreover, we recommend that future research with a larger sample size should be focused on pre-treatment implant evaluation and predictors of success and failure to overcome the knowledge gap.

## CONCLUSION

It was concluded that the general public were lacking awareness towards dental implants and their access was limited to this treatment due financial constraints. Dentists were the prime source of information providers. Additionally, dentists revealed highest level of knowledge regarding recent and conventional trends of dental implants. But despite of this the attitude was lacking and confidence in placement of implant were deficient.

**Acknowledgement:** The authors are grateful to research and ethics review committee of Altamash Institute of Dental Medicine for support and guidance in this study. We also acknowledge Dr. Maryam Abdul Rahman for her intellectual contribution to the study.

## AUTHOR'S CONTRIBUTION

**Ahmed N:** Designed research methodology, Manuscript final reading and approval, Statistical analysis.

**Abbasi MS:** Literature search, Literature review, Manuscript drafting, Manuscript final reading and approval.

**Mariam QA:** Data interpretation, Conceived idea.

**Abbas Q:** Statistical analysis, Literature search, Manuscript writing.

**Maqsood A:** Conceived data, Literature search, Data interpretation.

**Disclaimer:** None.

**Conflict of Interest:** None.

**Source of Funding:** None.

#### REFERENCES

1. Sukegawa S, Yoshii K, Hara T, Yamashita K, Nakano K, Yamamoto N, Nagatsuka H, Furuki Y. Deep Neural Networks for Dental Implant System Classification. *Biomolecules*. 2020;10(7):984. doi.org/10.3390/biom10070984
2. Yeo I-SL. Modifications of Dental Implant Surfaces at the Micro- and Nano-Level for Enhanced Osseointegration. *Materials*. 2020;13(1):89. doi.org/10.3390/ma13010089.
3. Aydemir CA, Arisan V. Accuracy of dental implant placement via dynamic navigation or the freehand method: A split - mouth randomized controlled clinical trial. *Clin. Oral Implants Res*. 2020;31(3):255-63.
4. Martin SI, Benic GI, Hämmerle CH, Thoma DS. Prospective randomized controlled clinical study comparing two dental implant types: volumetric soft tissue changes at 1 year of loading. *Clin Oral Implants Res*. 2016;27(4):406-411.
5. Sohail M, Aslam H, Ahmed N, Faruqui S, Maqsood A, Ansari MA et al. Awareness, knowledge and reluctance regarding dental implants. *Donn J Dent Oral Hyg*. 2016;2(1):1-4.
6. Ruiz DR, Romanos G. Potential causes of titanium particle and ion release in implant dentistry: a systematic review. *Int J Mol Sci*. 2018;19(11):3585.
7. Ramanauskaite A, Rocuzzo A, Schwarz F. A systematic review on the influence of the horizontal distance between two adjacent implants inserted in the anterior maxilla on the inter-implant mucosa fill. *Clin Oral Impl Res*. 2018;29(15):62–70. DOI: 10.1111/clr.13103
8. Goulart MD, Vettore MV. Is the relative increase in income inequality related to tooth loss in middle-aged adults. *J Public Health Dent*. 2016 ;76(1):65-75.
9. Leon RM, Sadeghpour M, Ozcan M. A Review of the Applications of Additive Manufacturing Technologies Used to Fabricate Metals in Implant Dentistry. *J Prosthodont*. 2020 ;29(7):579-593.
10. Sharma A, Chaudhari BK, Shrestha B, Suwal P, Parajuli PK, Singh RK, et al. Knowledge and perception about dental implants among undergraduate dental students. *Br Dent J*. 2019;5(1):1-5.
11. Ferro AS, Nicholson K, Koka S. Innovative Trends in Implant Dentistry Training and Education: A Narrative Review. *J Clin Med*. 2019;8(10):1618.
12. McAndrew R, Ellis J, Lynch CD, Thomason M. Embedding implants in undergraduate dental education. *Br. Dent. J*. 2010 .208(1):9-10.