

Original Research Article

Knowledge and Awareness of Dental Implants: A Survey Done among Saudi General Public

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Dental implants are the norm of today's prosthetic and restorative dentistry, but is it the answer for edentulous patients that can affect both individuals' appearance and functioning, therefore having an impact on the psychological and the social well being of the person is an ongoing quest. Knowledge of dental implants has differed among various age groups. The younger public has demonstrated a better awareness to the placement of dental implants, whereas, the older adults showed poor knowledge. Study was conducted in Riyadh Colleges where 364 people were inquired about their knowledge of implants. Questions were included to determine the knowledge, source of knowledge, the attitude of public towards implants treatment and other relevant points. Female participants had better knowledge about dental implants as compared to males. Participants more than the age of 50 had better knowledge about dental implants as compared to younger participants. Majority of the participants reported that dental implants are the best treatment option as compared to other fixed or removable choice.

Keywords: Dental implants, Knowledge, Barriers to treatment.

INTRODUCTION

Use of dental implants is on the rise in many developing countries. The most important aspect of implant treatment is its knowledge among the general public. In Saudi Arabia, people chose either private or public dental treatment options. An exploratory cross-sectional analytical study of patients coming for prosthodontic treatment to private general dental practices and public hospitals in New South Wales was completed, which showed that more patients coming to private clinics had 'heard' of dental implants compared with the public hospitals (Best, 1993).

Dental implants are the norm of today's prosthetic and restorative dentistry, but is it the answer for edentulous patients that can affect both individuals' appearance and functioning, therefore having an impact on the psychological and the social well-being of the person is an ongoing quest. Also, patients' beliefs and personal expectations for dental implants vary, which may influence the treatment outcome, thus emphasizing the importance of a good clinical-patient communication (Walia et al, 2016). Another study in Saudi Arabia resulted in findings that majority of the general public did not know about dental implants as an option to replace their missing teeth. The researchers further investigated the

source of information to the public. Majority of the subjects need more information about dental implants. Almost 74.4% of those surveyed did not know if their regular dentists use dental implants (Al-Johany et al, 2010).

Another survey in India was done on 10,000 patients visiting both private as well as public dental hospitals. The great majority of people had not heard about the implant treatment option, which again depicts the lack of knowledge. All in all, the percentage of the Indian urban population who had heard about the implant treatment option was merely 23.24% (Chowdhary et al, 2010). A study was done on Austrian general public regarding their knowledge of dental implants, which showed that their source of implant knowledge was their dentist as compared to a small percentage who received information from media. Overall knowledge of Austrian public has improved when it was compared to previous statistics (Pommer et al., 2011).

Another study on implant costs and knowledge was done in general public where questions were directed to the interested patients before having a professional consultation. More than half of the patients thought that implants need the same care as natural teeth, 61% expected an additional payment, and

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80% held the function of an implant-supported overdentures as very important & 54% attached great importance to the aesthetics. There are still misconceptions regarding cost, and these must be resolved in future (Rustemeyer & Bremerich, 2007). A very important aspect of dental implants placements is the knowledge and high cost. It is imperative to know the level of awareness among the general public regarding the use of dental implants. It has been observed that people belonging to the middle economic class have little knowledge regarding dental implants. However, people who did have knowledge, their major concern was the high cost (Satpathy et al, 2011).

Knowledge of dental implants has differed among various age groups. The younger public has demonstrated better awareness to the placement of dental implants, whereas, the older adults showed poor knowledge. The acceptance of dental implants in the elderly population might be increased by providing further information and promoting oral health in general. Regardless of the age, dental implants should be placed when patients are still in good health and live independently (Muller et al, 2012).

A study done in India focused to determine the level of knowledge and attitude of patients towards implant treatment as an option for replacement of missing teeth. This epidemiological study revealed that only 33% of the participants had heard of dental implants. Very few people had undergone implant surgery. The level of awareness increased with education. The main factor for not having implants was due to its high treatment charges. However, they were interested to know more about the implant treatment modality (Suprakash et al, 2013).

Patients' satisfaction can play an important role in convincing people related to them in order to go for this treatment option. A study was done to evaluate the satisfaction of patients with dental implants in relation to the clinical success. Results suggested that the satisfaction of implants patients was high, and which was in relation to the successful clinical success criteria (Alam et al, 2015). When discussing patients' expectations on treatment outcomes, a literature review was done to identify the theoretical frameworks, study designs and measurement instruments which have been employed to assess patients' expectations within implant dentistry. It was noted that there is a growing interest in patients' expectations of dental implants. Most studies were cross-sectional in nature and the quality of reporting varies considerably. Expectations with respect to aesthetics and function are key attributes considered. The use of visual analogue scales (VASs) provides quantitative assessments of patients' expectations but the lack of standardization of measures prohibits meta-analysis (Yao et al, 2014).

A research conducted among Turkish general public focused to evaluate the knowledge on dental implants. A large majority of people were unaware of the implants treatment modality. The information sources of the implants were mostly from the dentist and some through media and family or friends. The dentist should give more detailed information to the patients about dental implants and tooth-supported fixed partial dentures in the future (Tomruk et al, 2014).

Cost has been the major issue related with patients' choice of treatment for missing teeth. Delivering appropriate and affordable healthcare is a concern across the globe. As the countries grapple with the issue of delivering healthcare with finite resources and populations continue to age, more health-related care services or treatment may become an optional 'extra' to be purchased privately. As private healthcare market expands to provide more 'non-essential' services, patients

need to develop new skills and to be supported in their new role as consumers (Exley et al, 2012).

Dental implantology is fast becoming a specialty in the field of dentistry. Within the last five decades, dentistry appears to have recorded its most significant advancement in the field of dental implantology. A survey was done in Enugu among the health care workers, which determined the knowledge and awareness regarding dental implants. Results indicated that the knowledge of dental implants as a replacement choice for missing dentitions is low among the healthcare workers in Enugu (Mgbeokwere et al, 2011).

AIMS OF THE STUDY

- To determine the knowledge of dental implants among general public
- To determine the preference of general public in choosing from different prosthesis.
- To determine the source of their knowledge

MATERIALS AND METHODS

A closed-ended questionnaire was used to assess the above mentioned points. Study was conducted in Riyadh Colleges where 364 people were inquired about their knowledge of implants. Questions were included to determine the knowledge, source of knowledge, the attitude of public towards implants treatment and other relevant points. The total duration of research was 2 months from the date of registration. The data achieved was subjected to statistical analysis using SPSS version 16. Descriptive statistics was done using Chi-square test.

RESULTS

See figures 1 – 10 and tables 1 – 6 below.

DISCUSSION

Dental implants have become a popular choice of replacing missing teeth. This study was designed to investigate the level of knowledge if dental implants among general Saudi public. Subjects were inquired about various teeth replacement options and their preference. Responses to questions were then compared according to gender, age groups and dental visits experience. Female participants were found to be more knowledgeable regarding dental implants, whereas participants more than 50 years of age were better informed.

Dental implants should be practiced by trained and qualified dentists. A large majority of participants were not aware if their dentist practiced dental implants or not. Another important point regarding awareness of dental implants depends on the number of dental visits of the participants. It could be clearly appreciated that the participants with more than five dental visits, had much better knowledge about dental implants and their most common source of information was their own dentists.

The general public needs to know about the options they can have when it comes to the replacement of missing teeth. Their perception and awareness depend on various information channels as well as their educational levels. Electronic as well as social media can be used more efficiently to create awareness among the general public, which eventually could help them choosing better options for their oral health.

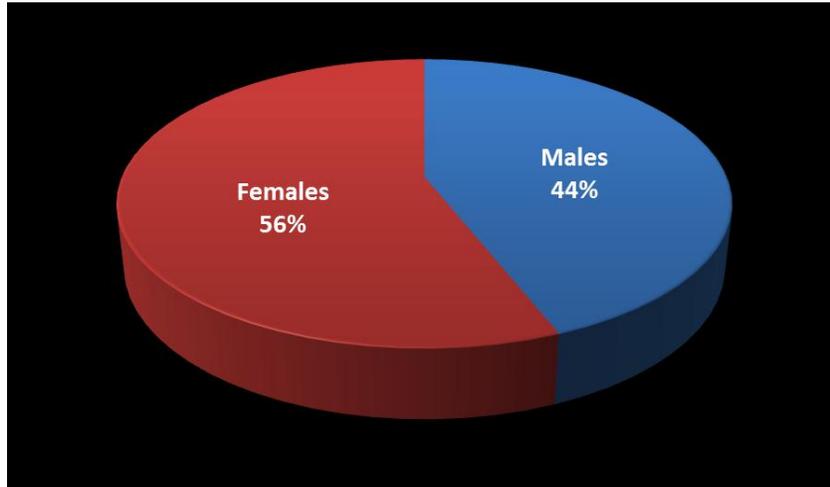


Figure 1: Male vs. female participants in this study

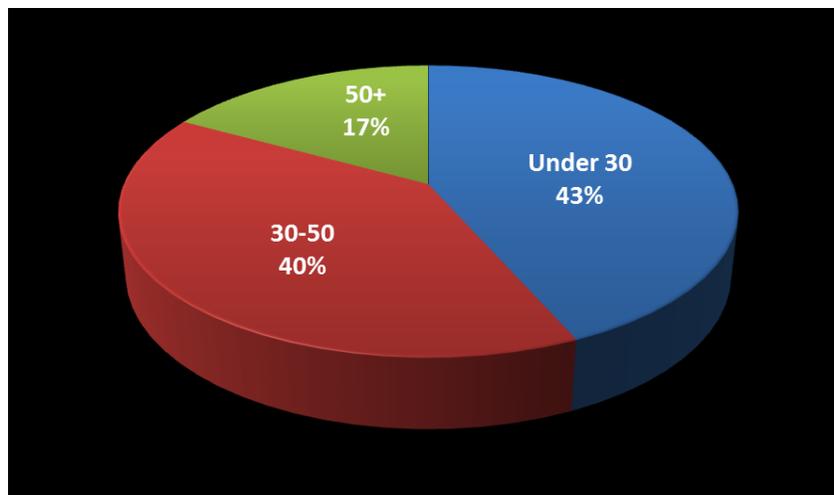


Figure 2: Age groups of the study participants

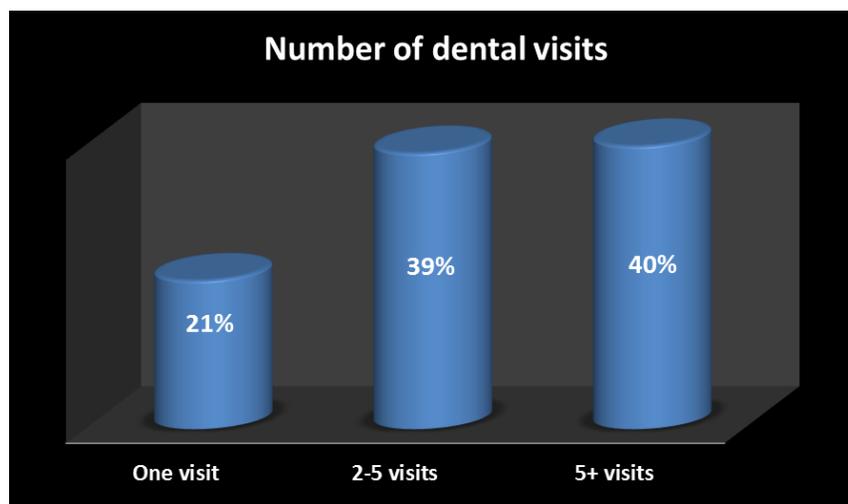


Figure 3: Number of previous dental visits of study participants



Figure 4: Knowledge of participants regarding fixed prosthesis

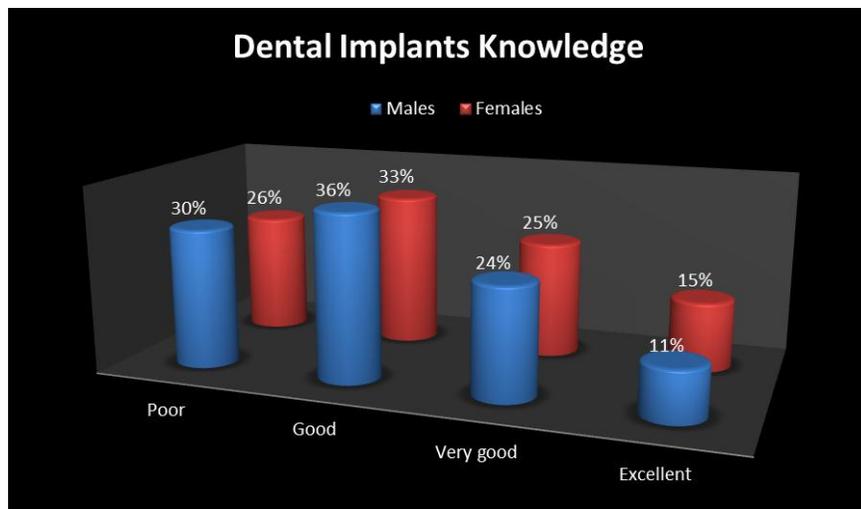


Figure 5: Male vs. female knowledge regarding dental implants

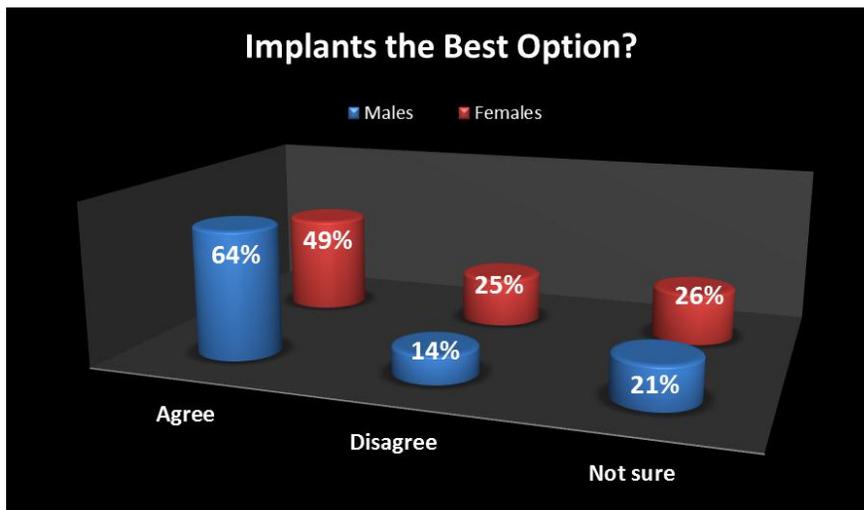


Figure 6: Male vs. female response to Implants' as a treatment option

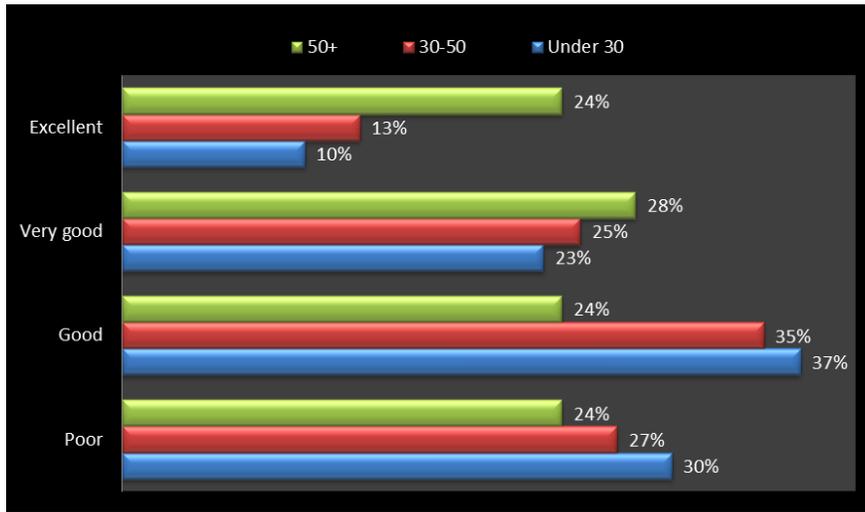


Figure 7: Different age groups' response to knowledge about implants

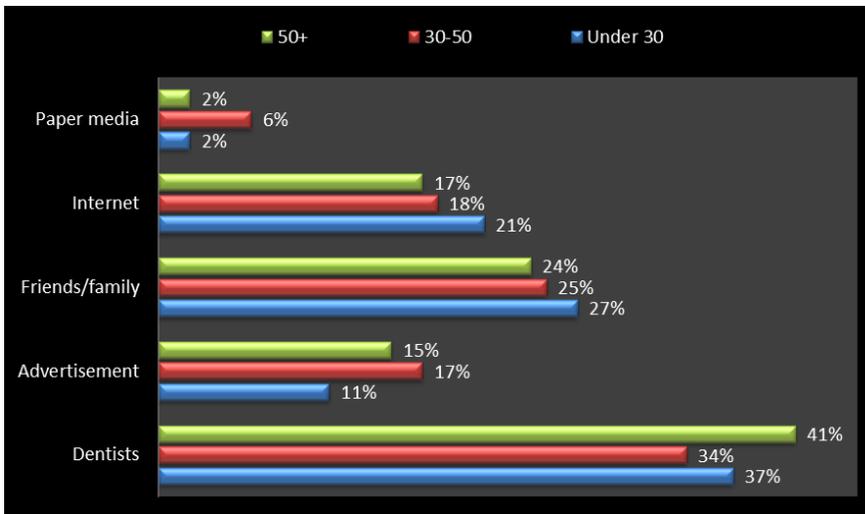


Figure 8: Different age groups' response to sources of implants information

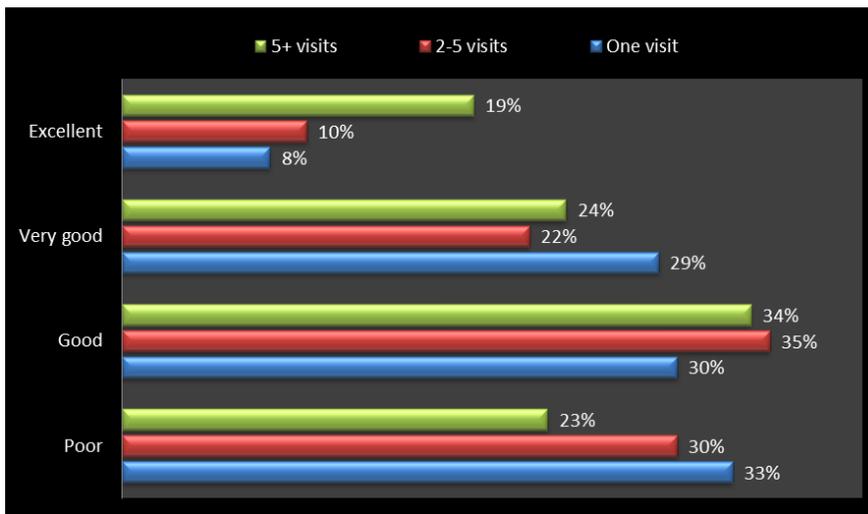


Figure 9: Knowledge about implants relative to number of dental visits

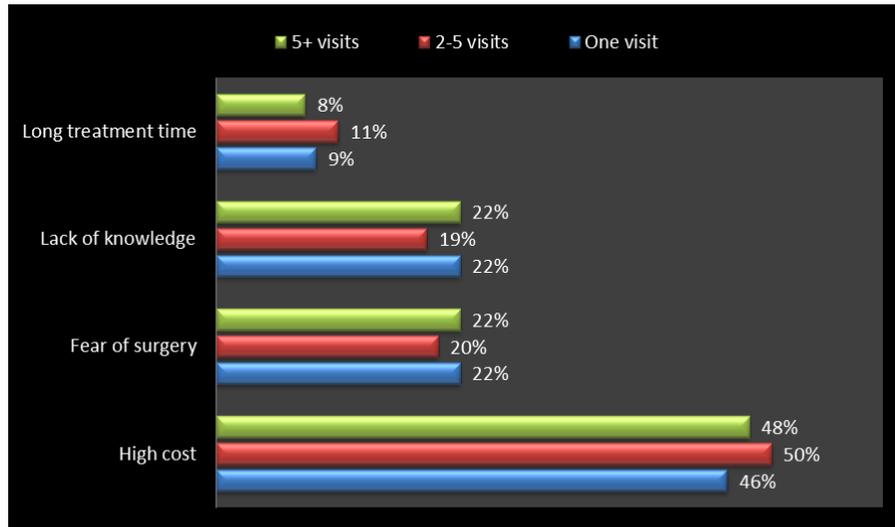


Figure 10: Reasons for not choosing dental implants

Table 1: Male vs. female response to awareness regarding removable prosthetics

		Awareness Removable Prosthesis				Total
		Poor	Good	Very good	Excellent	
Gender	Male	43	58	31	29	161
	Female	51	84	47	19	201
Total		95	142	79	48	364

P - Value: 0.192

Table 2: Male vs. female response to awareness regarding dental implants

		Awareness Regarding Implants				Total
		Poor	Good	Very good	Excellent	
Gender	Male	48	58	38	17	161
	Female	53	67	50	31	201
Total		102	126	88	48	364

P- Value: 0.749

Table 3: Male vs. female response to source of dental implants information

		Source of Information						Total
		Dentists	Advertisements	Friends/Family	Internet	Newspapers/Magazines	12	
Gender	Male	52	31	43	29	6	0	161
	Female	80	21	49	41	8	1	200
Total		132	52	94	70	14	1	363

P- Value: 0.209

Table 4: Various age groups response to awareness of removable prosthesis

		Awareness Removable Prosthesis				Total
		Poor	Good	Very good	Excellent	
Age Group	Under 30	42	78	32	15	167
	More than 50	13	10	11	12	46
	Between 30-50	40	54	36	21	151
Total		95	142	79	48	364

P – Value: 0.016

Table 5: Various age groups response to awareness about dental implants

		Awareness about Implants				Total
		Poor	Good	Very good	Excellent	
Age Group	Under 30	50	62	38	17	167
	More than 50	11	11	13	11	46
	Between 30-50	41	53	37	20	151
Total		102	126	88	48	364

P- Value: 0. 238

Table 6: Various age groups response to implant being best treatment choice?

		Implant Best Treatment?				Total
		Agree	Disagree	Not sure	4	
Age Group	Under 30	93	25	48	1	167
	More than 50	22	18	6	0	46
	Between 30-50	88	31	32	0	151
Total		203	74	86	1	364

P – Value: 0.011

CONCLUSIONS

- Female participants had better knowledge about dental implants as compared to males.
- Participants more than the age of 50 had better knowledge about dental implants as compared to younger participants.
- Majority of the participants reported that dental implants are the best treatment option as compared to other fixed or removable choice.
- The only barrier to implants treatment is the high cost.
- Participants with more than 5 visits to their dentist had better knowledge about dental implants and the major source of information was their dentists.

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