



AWARENESS OF DENTAL IMPLANT TREATMENT IN SOUTH INDIAN POPULATION

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ABSTRACT **Context:** Implant supported prosthesis moves forward the self confidence and quality of life of the patient by giving them masticatory consolation and a tall level of fulfillment. For any proficient community, it is fundamental to know whether patients feel well educated and whether what they know reflects on the current propels in dental well being care. **Aim:** The aim of the study was to evaluate the information and mindfulness of dental implant as a treatment choice in south Indian populace especially in Tamil Nadu and Kerala people. **Materials And Strategies:** A survey comprising of 12 questions was utilized to survey the level of information and mindfulness among patients with respect to dental implant as a treatment choice for supplanting lost teeth. A add up to of 119 subjects were randomly chosen and assessed based on filled survey reactions. **Comes About:** As it were 76.8% of the populace knew around dental implants as a treatment choice. For 56.7% of the populace, the source of data with respect to prosthetic choices was through companions , relatives , social media and for 28.1%, it was from dental practitioners. **Conclusion:** This ponder appeared that information and mindfulness with respect to dental implant was less. The patients had a shallow information with respect to prosthetic alternatives. Accentuation is put on the require for conducting and executing different open mindfulness campaigns and for setting up counseling centers.

KEYWORDS :

INTRODUCTION:

Dental implants have been primarily pushed for utilization among edentulous subjects owing to superior steadiness and maintenance of dentures, moved forward working, and quality of life. In any case, these days, they are utilized as prosthesis for the substitution of lost teeth in both somewhat and totally edentulous people. Their wide acknowledgment among treated subjects has been detailed by different creators. Dental implants are favored for prosthetic substitution due to superior quality of life, self-confidence, self-assurance, and preservation of adjoining tooth.

The primary part of prosthodontics is the restoration of patients after misfortune of teeth and verbal work. Be that as it may, there are for the most part no acknowledged rules around how to assess require, request or utilization of prosthodontic administrations in most circumstances, since person inclinations play an awfully vital part. People with less instruction and moo wage tend to have poorer dental status since of poor finances. Subsequently, these people don't indeed consider treatment they know they cannot afford. Also, older people acclimated to their conventional dentures don't show interest in implant treatment.

However, with the coming of modern innovation more remedial choices have gotten to be accessible subsequently, changing the face of demand for prosthodontic treatment. Among these, implant treatment has come into center, since it gives amazing long-term comes about in recovery of in partially or completely edentulous patients.

MATERIALS AND METHODS

Study Design And Study Population :

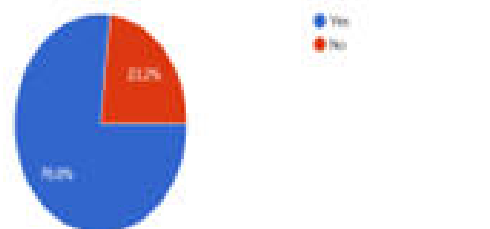
This study adopted a cross-sectional survey design. The target population for this study was 119 subjects were randomly selected to assess the knowledge and awareness of dental implants as a treatment choice in south Indian population especially Tamil Nadu and Kerala. All the participants were within the age groups of 18–75 years.

The questionnaire :

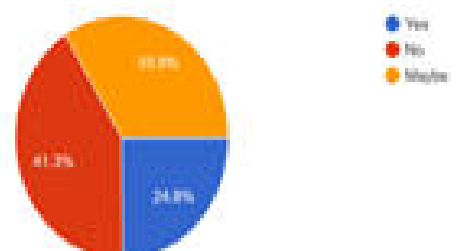
A self-explanatory questionnaire was designed to assess the patient's knowledge and awareness regarding dental implants. The questionnaire was adopted from a previous study conducted by Tepper et al., 2003. A pilot study was performed on ten dental patients to evaluate the efficiency of the questionnaire. The questionnaire was finalized with the necessary modifications. The ultimate survey

comprised of statistic factors and 12 multiple-choice questions relating to the consider objective in two parts. The things within the to begin with set of questions included dental status, substitution for lost teeth on the off chance that any, and the common demeanor toward the require for prosthodontic assessment..The first question was “**Do you know about Dental Implants as a treatment option to replace missing tooth**” (Mishra et al 2023) .The second set of questions assessed their awareness and level of information about dental implants as a prosthetic option along with the level of acceptance of dental implants as a treatment option as compared to other prosthetic options. So the eighth question was “**If it is, are you willing to place a Dental Implant**” (Garni, et al.2012). These questions were asked only to those who knew about dental implants.

1. Do you know about Dental Implants as a treatment option to replace missing tooth?
112 responses



6. If it is, are you willing to place a Dental Implant?
109 responses



Statistical Analysis

The Normality tests Kolmogorov-Smirnov and Shapiro-Wilks tests results shows that all result values follow Normal distribution. Hence, parametric test were applied to analyze the data. Data was entered in Microsoft excel spread sheet and analysed using SPSS software (version 26). Descriptive and Inferential analysis is performed. **Chi square test:** To assess the association between the responses and variables such as age, gender and education. For test, a p value of <0.05 is statistically significant.

RESULTS:

The sample comprised of 24 (20.2%) males and 87 (73.1%) females. The age range of the participants was above 18 years. The age between 18-20 years are 26 (21.8%), 21-30 years are 40 (33.6%), 31-40 years are 15 (12.6%), 41-50 years are 6 (5.0%), above 51 years are 24 (20.2%). The level of education of 74 (62.2%) participants was graduated and above. Participants 36 (30.3%) were have missing teeth.

Table 1 Descriptive Statistics

Variable	Mean±S.D.	
Mean Age	32.66±14.49	
		N (%)
Age groups	18-20	26 (21.8)
	21-30	40 (33.6)
	31-40	15 (12.6)
	41-50	6 (5.0)
	>51	24 (20.2)
Gender	Male	24 (20.2)
	Female	87 (73.1)
	Missing	8 (6.7)
Education	Completed School	9 (7.6)
	Graduate	74 (62.2)
	Masters	23 (19.3)
	Missing	13 (10.9)

Table 2 Responses To The Questions

Questions		N	%
1. Do you know about Dental Implants as a treatment option to replace missing tooth?	Yes	86	72.3
	No	26	21.8
	Total	112	94.1
	Missing	7	5.9
2. Where did you get information on Dental Implants?	Family Dr / Physician	6	5.0
	Friends	21	17.6
	Dentist	45	37.8
	Relatives	14	11.8
	Social Media	23	19.3
	Missing	10	8.4
3. What do you think is the biggest disadvantage of Dental Implant?	Expensive	52	43.7
	Invasive Surgery	26	21.8
	Long period of treatment completion	31	26.1
	Missing	10	8.4
4. How long do you think an Implant last?	Less than 5 yrs	27	22.7
	5 years	28	23.5
	10 years	19	16.0
	20 years	9	7.6
	Lifetime	25	21.0
	Missing	11	9.2
5. Do you have any missing teeth?	Yes	36	30.3
	No	76	63.9
	Missing	7	5.9
6. If it is, are you willing to place a Dental Implant?	Yes	27	22.7
	No	45	37.8
	Maybe	37	31.1
	Missing	10	8.4
7. Where do you prefer to do Dental Implants?	Hospital	45	37.8
	Private Clinic	38	31.9
	Dental College	25	21.0
	Missing	11	9.2
8. Which specialist doctor do you prefer for doing Dental Implants?	Prosthodontist (MDS)	49	41.2
	Periodontist (MDS)	19	16.0
	Oral Maxillofacial Surgeons (MDS)	7	5.9
	Dental Surgeons (BDS)	30	25.2

	Missing	14	11.8
9. Are you willing to do robot-guided Dental Implant surgery?	Yes	21	17.6
	No	70	58.8
	Maybe	18	15.1
	Missing	10	8.4
10. Are you willing to take a digital scan and CBCT (3D) dental scan ?	Yes	38	31.9
	No	44	37.0
	Maybe	28	23.5
	Missing	9	7.6
11. Whom would you blame for a dental implant failure/loss?	Dentist	46	38.7
	Patient	15	12.6
	Poor oral Maintenance	23	19.3
	Rejection by the body / Allergy	25	21.0
	Missing	10	8.4
12. Do you know someone who has undergone Dental Implant Treatment?	Yes	51	42.9
	No	60	50.4
	Missing	8	6.7

Table 3: Association Between The Responses To The Question 'do You Know About Dental Implants As A Treatment Option To Replace Missing Tooth?' And Demographic Variables

		Yes	No	Total	Chi square	p Value
Age Groups	18-20	15 (17.6)	11 (42.3)	26 (23.4)	8.207	0.08
	21-30	32 (37.6)	8 (30.8)	40 (36.0)		
	31-40	13 (15.3)	2 (7.7)	15 (13.5)		
	41-50	6 (7.1)	0 (0.0)	6 (5.4)		
	>51	19 (22.4)	5 (19.2)	24 (21.6)		
Gender	Male	22 (25.9)	2 (7.7)	24 (21.6)	3.887	0.04
	Female	63 (74.1)	24 (92.3)	87 (78.4)		
Education	Completed School	8 (9.6)	1 (4.3)	9 (8.5)	1.145	0.56
	Graduate	56 (67.5)	18 (78.3)	74 (69.8)		
	Masters	19 (22.9)	4 (17.4)	23 (21.7)		

Chi square test

p value <0.05 is considered statistically significant

Table 4 : Association Between The Responses To The Question 'whom Would You Blame For A Dental Implant Failure/loss?' And Demographic Variables

		Dentist	Patient	Poor oral Maintenance	Rejection by the body/ Allergy	Total	Chi square	p value
Age Groups	18-20	11 (24.4)	4 (26.7)	6 (26.1)	5 (20.0)	26 (24.1)	9.988	0.61
	21-30	19 (42.2)	5 (33.3)	6 (26.1)	9 (36.0)	39 (36.1)		
	31-40	4 (8.9)	4 (26.7)	2 (8.7)	3 (12.0)	13 (12.0)		
	41-50	4 (8.9)	0 (0.0)	1 (4.3)	1 (4.0)	6 (5.6)		
	>51	7 (15.6)	2 (13.3)	8 (34.8)	7 (28.0)	24 (22.2)		
Gender	Male	14 (31.1)	1 (6.7)	3 (13.0)	6 (24.0)	24 (22.0)	5.324	0.15

	Fem	31	14	20	19	84		
	ale	(68.9)	(93.3)	(87.0)	(76.0)	(77.8)		
Educ	Com	1	3	3	2	9		
ation	plet	(2.3)	(20.0)	(14.3)	(8.3)	(8.7)		
	ed							
	Scho							
	ol							
	Gra	36	7	13	16	72		
	duat	(83.7)	(46.7)	(61.9)	(66.7)	(69.9)		
	e							
	Mast	6	5	5	6	22		
	ers	(14.0)	(33.3)	(23.8)	(25.0)	(21.4)		

Chi square test

p value <0.05 is considered statistically significant

DISCUSSION

The present cross-sectional study was conducted among individuals living in Tamil Nadu and Kerala to evaluate the awareness and knowledge about dental implants. The study sample consisted of 119 participants between the ages of 18 and 75, among whom 72.3% were aware of dental implants as a treatment option for missing teeth. The findings reveal an overall moderate level of awareness among the population, with demographic variables such as age and gender showing some influence on the level of awareness, while education did not show a statistically significant association.

Awareness related dental implants as a treatment modality is a crucial determinant of treatment acceptance and utilization. In this study, younger adults in the age group of 21–30 years exhibited the highest awareness, followed by those in the 18–20 and >51 age groups. However, the difference among age groups was not statistically significant ($p = 0.08$). This suggests that although awareness spans various age ranges, educational campaigns may still be needed to bridge the knowledge gap, particularly among older and less-exposed individuals. Interestingly, gender was found to have a statistically significant association with awareness ($p = 0.04$), with a higher proportion of females being informed about dental implants. This finding matches with previous research by Chowdhary et al. (2010), who observed a greater healthcare-seeking attitude among female patients, possibly influenced by aesthetic concerns and self-care behaviors.

Despite the medium level of awareness, a particular group of the population remains uninformed, indicating the need for educational initiatives. Most participants cited dentists (37.8%) as their primary source of information, followed by friends and social media. This highlights the pivotal role of dental professionals in patient education and counseling, as also observed in studies by Zimmer et al. (2007) and Mplant et al. (2016), which emphasized that professional consultation significantly impacts patients' perceptions and decisions regarding implants.

Among those aware of dental implants, the most frequently cited disadvantage was cost (43.7%), followed by the invasive nature of the procedure (21.8%) and the prolonged treatment duration (26.1%). These perceptions are consistent with previous findings from Tepper et al. (2003) and Pommer et al. (2011), who reported that financial constraints and surgical fears are major barriers to implant treatment acceptance. Only 22.7% of participants expressed definite acceptance to opt for implants, while 31.1% remained unsure. This hesitation, despite awareness, reflects the influence of economic, psychological, and informational barriers that need to be addressed through patient-centered counseling and financing options.

Interestingly, when asked about the longevity of implants, responses varied widely, indicating limited clarity regarding implant durability. Only 21% believed implants could last a lifetime, while others expected durations ranging from less than 5 years to 20 years. Such knowledge gaps underscore the importance of informed consent and pre-treatment counseling in enhancing patient understanding and expectations. Educating patients on advancements in implant materials, techniques, and success rates—typically over 90% when properly maintained (Buser et al., 2012)—could improve acceptance rates.

The preference for the place of treatment revealed that 37.8% would opt for hospitals, 31.9% for private clinics, and 21% for dental

colleges. This reflects a fairly even distribution, suggesting that accessibility and perceived quality of care may be influencing choices. Additionally, 41.2% preferred prosthodontists, indicating some awareness of the specialized nature of implantology. This is a positive indicator, as recognition of specialists has been linked to better treatment outcomes and increased trust in the procedure (Sakka et al., 2012).

An intriguing aspect of the study was participants' willingness to embrace advanced technology in implant dentistry. Only 17.6% expressed willingness to undergo robot-guided implant surgery, and 31.9% were open to CBCT and digital scanning. These results point to a cautious attitude toward newer technologies, possibly due to lack of exposure or perceived cost implications. As digital dentistry continues to evolve, public education must also address technological acceptance and its benefits in precision, safety, and outcomes.

Regarding accountability for implant failure, 38.7% of participants attributed it to the dentist, followed by 21% who blamed biological rejection and 19.3% who cited poor oral maintenance. This reflects a tendency to hold the provider accountable, which underscores the importance of transparent communication about patient roles, postoperative care, and the multifactorial nature of implant success. The association between blame and demographic variables such as age, gender, and education was not statistically significant, suggesting a generally shared perception across groups.

Finally, 42.9% of participants reported knowing someone who had undergone implant treatment. Personal acquaintance with an implant recipient can influence perception and willingness to consider implants, as peer experiences often serve as informal endorsements. Previous studies, including those by Al-Johany et al. (2010), have shown that individuals are more likely to opt for implants when they receive positive feedback from peers or family members who have had similar experiences.

In conclusion, the study reveals a moderate level of awareness and knowledge about dental implants in the South Indian population, with significant gaps in understanding key aspects such as longevity, procedure details, and technological options. While dentists remain the primary source of information, the role of digital platforms is increasing. Acceptance of implants is influenced by factors such as cost, fear, and treatment duration. Enhancing awareness through public health initiatives, targeted education, and improved communication by dental professionals can facilitate better-informed treatment decisions and potentially increase the adoption of implant therapy in the region. Continued research into socio-cultural and economic determinants will be vital in tailoring effective awareness programs and ensuring equitable access to advanced dental care.

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