



PERCEPTION AND AWARENESS OF PROSTHODONTIC REHABILITATION AMONG GENERAL POPULATION

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ABSTRACT

Aim and objectives: The aim of this article is to access the perception and awareness of prosthodontic rehabilitation among the general population in Chennai to interpret their level of knowledge and recognition.

Materials and methodology: The cross-sectional questionnaire survey was implemented among general population in Chennai during the pandemic period. Total of 150 samples were collected with 20 questions including the demographic details (gender, education, income) were formulated. Data were statistical analyzed using SPSS software version 26.0 program.

Result: A total of 150 samples were collected 65 were male and 85 were female participants. About 123 participants were aware of replacing missing teeth and 27 were not aware of it. When participants were asked that missing teeth influences self confidence 99 agreed and 25 disagreed. 102 participants agreed that missing teeth has effect on chewing food. Regarding maintenance of prosthesis like natural teeth 100 participants agreed.

Conclusion: This study revealed that the present general population are aware of prosthodontic treatment but still smaller number of populations have lesser awareness about it. Financial constraints was the major factor for not availing prosthodontic rehabilitation.

KEYWORDS : Perception; Awareness; Missing teeth; Removable Prostheses; Fixed Prostheses; Implants, General population.

INTRODUCTION:

Prosthetic treatment differs widely from replacement of missing teeth in a healthy incomplete dentition to complete rehabilitation of badly damaged teeth to functional form. Multiple prosthetics choices are available for the patient to recover lost teeth that consist of removable or fixed partial denture, complete dentures, implant supported processes and over-dentures [1]. In the past few years with accelerated advancement in oral health, and the reduction of edentulism in many countries, increasing a number of people as retaining more teeth later in life [2]. However, of late, patient demands such as aesthetics and functional convenience is considered more important when attempting to restore missing teeth [3-5].

The three major factors that determine the acceptability and achievement of any type of prosthetic treatments are comfort, function and aesthetic. Mechanical and biological factors determine the comfort and function. Patient's consent of aesthetic aspect is determined by social, and cultural impact and attitude and faith of an individual [6]. However, Knowledge of people regarding prosthodontic treatment may play a role in their acceptance of the prosthesis [7].

Selection on pursuing dental prosthetic treatment has also been related to demographic characteristics such as gender, age, education, economic condition, and interest [8]. The technique considered for evaluating the need for prosthetic management of partially dentate patients include the patients demand for the treatment and the objective oral status of the patients [9]. The aim of the study was to assess the perception, awareness, and knowledge of prosthetic rehabilitation among general population.

MATERIALS AND METHODOLOGY

Cross-sectional questionnaire survey was conducted randomly among the public of Chennai in India to know the prosthetic rehabilitation knowledge and awareness among general population. Since this study was conducted during Covid -19 pandemic lockdown period, it was unable to collect live samples from the subjects. The questionnaire was converted into google form and circulated among public of Chennai through what's app groups and other social media. A total of 150 subjects were randomly participated according to their willingness. A self-administered structured questionnaire of twenty questions designed to access knowledge of prosthetic rehabilitation among general population was self formulated. The questionnaire also includes demographic details and socioeconomic status of participants exploring awareness and idea of prosthetic rehabilitation among public along with their perception and knowledge of cause and management of missing teeth. No identifying information was included in the questionnaire, the questionnaire consisted of a

combination of selected response to the questions and close ended questions (Yes/No).

The concern of public on prosthetic rehabilitation after missing of teeth, and their myths, idea and dental approach was discussed in this survey. Participants were asked to complete and submit the responses to this online survey. Subsequently, summary of the responses were analyzed through the Google forms itself. All the questions were marked as mandatory, so without answering the participants cannot submit the response and by this data missing was eliminated. Statistical Analysis: Data were statistical analyzed using SPSS software version 26.0 program.

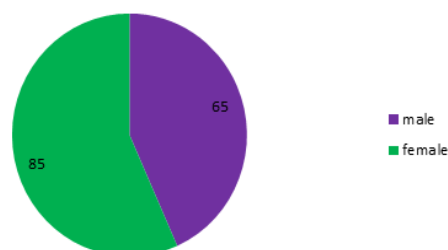
RESULT:

On statistical evaluation it was observed all 150 samples were valid for the study with Cronbach's alpha reliability score being **0.460** (Significant score). Kruskal-Wallis Test calculator showed $H = 20.2263$ with **p-value of .00004**. The result is significant at $p < .05$.

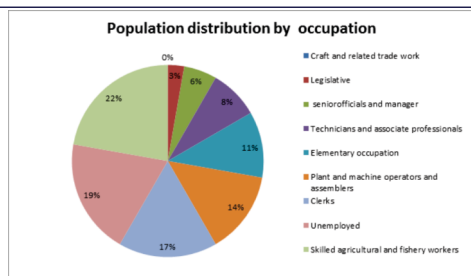
DEMOGRAPHIC DATA

It was observed 65 were male and 85 were female participants (Graph 1). Out of which 43 participants belong to Technicians and associate professionals occupational category and 39 were unemployed (Graph 2). On evaluating the monthly income status 31 participants belong to low income category (<6327 rupees/Month) and others were distributed randomly as shown in the table below: (Table 1). One-Way ANOVA showed f-ratio value of 0.20886. The p-value is .655206. The result is not significant at $p < .05$ suggesting no significant difference between the gender with monthly income and occupation among the study participants (Table 2).

GENDER WISE DISTRIBUTION



Graph 1: Graph showing the gender-wise distribution of the study participants



Graph 2: Graph showing the Population distribution by occupational status

Table 1: Table showing the monthly income status of the study participants

Monthly income	Participants
>126,360	23
63,182 to 126,356	14
43,266 to 63,178	18
31,591 to 43,192	20
18,953 to 31,589	20
6327 to 18,949	24
<6327	31
total	150

Table 2: Table showing the One-Way ANOVA analysis

ONE WAY ANOVA	GROUPS	Monthly income vs Occupation	
	monthly income	occupation	Total
N	8	7	15
$\sum X$	150	150	300
Mean	18.75	21.4286	20
$\sum X^2$	4308	3386	7694
Std.Dev.	14.6165	5.3497	11
Source	SS	df	MS
Between-Groups	26.7857	1	26.7857
Within-Groups	1667.2143	13	128.2473
Total	1694	14	
			F = 0.20886

The f-ratio value is 0.20886. The p-value is .655206. The result is not significant at $p < .05$.

On evaluating the questions although technically a negative correlation, the relationship between the variables is only weak (nb, the nearer the value is to zero, the weaker the relationship). However value of R^2 , the coefficient of determination, is 0.1158 with the P-Value of .00002. The result is significant at $p < .05$. Chi square test was performed for each questions to evaluate the significance with $p < 0.05$ (Table 3)

Table 3: Table showing the Chi-square analysis with p-value and significance level

QUESTIONS	P-VALUE	SIGNIFICANCE
Q1	61.44	YES
Q2	51.24	YES
Q3	72.04	YES
Q4	81.28	YES
Q5	7.32	YES
Q6	43.96	YES
Q7	38.68	YES
Q8	10.667	YES
Q9	4.68	NO
Q10	7.72	YES
Q11	12.64	YES
Q12	20.9	YES
Q13	18.02	YES
Q14	3.76	NO
Q15	75.36	YES
Q16	12.28	YES
Q17	9.48	YES
Q18	19.067	YES
Q19	23.56	YES
Q20	15.96	YES

Participants were asked to answer wide range of questions regarding their awareness and perception of prosthodontic rehabilitation. First they were asked whether they are aware of replacing missing teeth and about 123 were aware and 27 were not aware and χ^2 value is 61.44 with significant p-value. Then they were asked if the missing teeth influences their facial appearance 91 agreed with χ^2 value of 51.24.

When participants were asked that missing teeth influences self confidence 99 agreed and 25 disagreed (χ^2 value -72.04). Then in questioning if missing teeth has effect on chewing food 102 agreed and χ^2 value of 81.28 has been recorded. About 88 participants agreed that missing teeth will cause food lodgement resulting in significant p-value with χ^2 value of 43.96. Among 150, 84 subjects says speech is affected in missing teeth results in χ^2 value of 38.68.

On questioning about whether they had consulted dentist regarding replacement of missing teeth 103 participants answered No and χ^2 value is 20.90. About 101 subjects do not have any missing teeth results with significant p-value and the χ^2 value is 18.02. Regarding maintenance of prosthesis like natural teeth 100 participants agreed and the χ^2 value is 75.36. About 78 subjects suggested prosthesis should be monitored by dentist at regular intervals resulting in χ^2 value of 23.56 with significant p-value.

DISCUSSION

Good oral health is a primary source for social, economic, and personal development of the individuals.[10] Teeth are important for mastication, phonetics, aesthetics, structural balance, and for the comfort of an individual. With the loss of teeth, the above functions are impaired resulting in physical, physiological, and psychological stress to the individual. [11] Thus, the practice to restore the missing teeth depends on the knowledge of the individual about the available types, and modes of artificial teeth replacement.[12, 13]

Many researches and studies were conducted to assess the knowledge and awareness among various population. The present study PERCEPTION AND AWARENESS OF PROSTHETIC TREATMENT AMONG GENERAL POPULATION “ aims to assess the knowledge and awareness among general population in Chennai, India. The assessment was done by preparing various questionnaire related to prosthetic treatment and 150 random samples consisting of 65 male and 85 female by gender was taken into the study. The questionnaire was prepared; responses were noted among the selected population groups under the study.

According to the present study 63. 3% of participants had positive attitude towards replacement of missing teeth. Whereas, in the study conducted by Gupta et al., only 58.3% of the participants showed positive attitude towards replacement.[13,14]

The present survey results showed that 45.5% of subjects showed positive attitude towards fixed prosthesis and only 32.7% felt removable as a better option. Whereas in the study conducted Gupta et al 40.5% of subjects showed positive attitude towards fixed prosthesis as mode of replacement of teeth and 20.1% felt removable as a better option this result was similar to the study done by Al-Quran et al [15]. Another survey done in Saudi Arabia stated that 50% of the participants preferred removable partial denture while 25% preferred fixed partial denture[16]. This result was opposite to our results.

In the current study, when a question asked about the main reason for not undergoing prosthodontic treatment 29.3% reported as financial constraints, 23.3% participants reported as inadequate knowledge whereas in the study conducted by Reddy et al 57.36% reported as inadequate knowledge and 18.27% as financial constraints [16]. This was opposite to our results. In the study conducted by Cakan et al 68% respondents reported that dentures can be worn overnight whereas in the present study 39.3% participants agreed it[18]. Dental education should encourage patients to remove dentures before retiring at night or for several hours each day to allow relief of underlying soft tissues.[18]

Results related to hygiene maintenance of artificial teeth revealed that 66.7% showed positive attitude and felt that maintenance of prosthesis is very important. Similar results were reported in the study conducted by Amjad et al. and Gupta et al [19,14]. In the present study 22% participants considered implant as better mode of replacement, whereas, in the study conducted by Gupta et al. 15.6% reported implant as a better mode of replacement[14]. This was explained in a study

conducted by Tepper et al that the cost was one of the major factors for not choosing implant as a treatment option.[20]

CONCLUSION

The survey has provided information regarding the perception and awareness of prosthodontic rehabilitation after missing of teeth among public. It was pleasure to perceive that present general population were aware of prosthodontic rehabilitation but still smaller number of populations are not aware of it. The Interesting fact has been obtained that more subjects have positive attitude towards replacing missing Teeth with prosthesis and their maintenance. In particular majority preferred fixed prosthesis. We conclude that financial constraints was the major factor for not availing prosthodontic rehabilitation.

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CONFLICT OF INTEREST: None declared

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