

## Perception towards not replacing missing teeth among the patients in the chengalpattu district- A questionnaire study.

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### ABSTRACT

**Background:** There is a need to assess general public perception of tooth loss and the consequences of replacing or not replacing the teeth.

**Objective:** The objective of the study is to analyze the perception towards not replacing the missing teeth among the patients in Chengalpattu district based on a questionnaire study.

**Method:** This cross-sectional study design was carried in the dental outpatient department of Prosthodontics and dental Camps in Chengalpattu district between June and September 2022. 200 participants were included in the study in the age group of 18 and 65 years of age. Informed consent was obtained and the study included pre-validated questions to analyse the perception towards not replacing the missing teeth. All the responses were duly recorded, checked for accuracy and statistically analyzed with SPSS, version 2.1 statistical software.

**Results:** 45% of them are aware of the consequence for not replacing the missing tooth and only 39.5% accepted that not replacing missing teeth intervened in their personal life. 50.5% felt it affected their self-esteem. About 46.5% perceived that not replacing the missing teeth will cause difficulty in eating, 24.5% understood that there would be speech difficulty, 19.5% were esthetically concerned and 9.5% had TMJ pain. According to this study 60% were aware of the available treatment modalities.

**Application:** The outcome of the study can aid in conduct of community out-reach programs.

**Keywords:** Awareness, consequence, educational programs, missing teeth, treatment modalities.

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### Introduction

Healthy teeth with good oral hygiene have a positive impact on people's day-to-day social life. Loss of tooth occurs due to numerous reasons, but the root cause has been poor oral hygiene. Tooth loss has detrimental effects over oral health that leads to drifting of adjacent teeth and super-eruption of opposing

teeth which may alter the masticatory movements, eventually leading to TMJ disorders. The loss of teeth can have a significant impact on an individual's ability to perform everyday tasks such as eating and speaking. Additionally, the aesthetics of missing teeth can be a source of embarrassment and negatively affect an

individual's self-confidence. To maintain optimal oral function and appearance, it is important to seek treatment for missing teeth as soon as possible.<sup>[1]</sup>

To prevent these consequences, prosthetic replacements are indispensable. There are several options available for treating missing teeth, including dental implants, bridges and dentures. The best option for each patient will depend on several factors, including the number of teeth that are missing and the overall health of the mouth.<sup>[2]</sup> A study conducted in 2012 found that nearly one third of adults in the United States had experienced tooth loss. Of those surveyed, only around half had received any kind of dental treatment for their condition. This suggests that there is a significant level of unmet need when it comes to addressing tooth loss. The same study also found that most people believed that tooth loss was a natural part of aging and were not aware of the potential consequences such as problems with eating or speaking clearly.

Therefore, this study was conducted to assess the perception towards the missing teeth among the patients in Chengalpattu district, Chennai.

## Background

Tooth loss has detrimental effects over oral health that leads to drifting of adjacent teeth and supra-eruption of opposing teeth which may alter the masticatory movements, eventually leading to TMJ disorders. To prevent these consequences, prosthetic replacements are indispensable. This study comes up with people's perception towards the consequences of missing teeth and

analysing the reasons for not replacing them. This would further aid us in educating the people by conducting awareness programs, which enlightens their consciousness towards the missing teeth.

## Materials and methodology:

This cross-sectional study design was carried in the dental outpatient department of SRM Kattankulathur Dental College and dental Camps in Chengalpattu district in June 2022 to September 2022. Sample size was determined as 200 with 95% level of confidence and 5% precision error based on similar literature. The study was directed towards the age group of 18- 65 years with the exclusion criteria of non-cooperative patients and patients having history of prosthodontic treatment. Informed consent was taken from the participants. This study includes demographic details like age, gender, educational and employment status, and pre-validated questions to analyze the perception towards not replacing the missing teeth were recorded. All the responses were duly recorded, checked for accuracy, and statistically analyzed.

In the current study, a pre-validated questionnaire comprising 14 closed end questions including multiple choice questions and yes/no questions in both English and regional language (Tamil) was used as a tool (Table No. 1). The first 4 questions include demographics' data like gender, age, education, and employment status. The following five questions for assessing the awareness among the patients to the consequences of non-replaced missing teeth. The third part of the questionnaire consisted

of 9 questions assessing the patient's reluctance for prosthodontic treatments. All the responses were duly recorded, checked for accuracy, and statistically analysed.

### Result:

In this study, 200 people participated voluntarily and the corresponding informed consent was obtained from each individual, resulting in 100% response rate. In the sample size of 200, 55% male and 45% female responded. According to the responses collected 45% of them are aware of the consequence for not replacing the missing tooth and only 39.5% accept that not replacing the missing tooth intervenes in their personal life, 50.5% affects their self-esteem. Table No.2 depicts the graphical representation of people's perception towards the consequences (ie. what probably might happen when a missing tooth is not replaced). About 46.5% opted not replacing the missing teeth will cause difficulty in eating, 24.5% opted for speech difficulty, 19.5% are esthetically concerned and 9.5% for TMJ pain (Fig. 1). Teeth play a vital role in mastication and as expected patients opted for difficulty in eating.

According to the collected reports 60% are aware of the available treatment modalities for replacing the missing teeth. The treatment modalities such as Implants were known for 33%, fixed prosthesis like crown bridges for 27%, removable prosthesis 14% and 26% were not aware of any (Table No. 3).

By analysing the reports, the reason for not replacing the missing teeth, the treatment expenditure is a roadblock for 61.5% of people, 45.5% found to be having difficulty in treatment accessibility, 60% are concerned

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about multiple appointments, 55% are anxious about the treatment (Table No. 1).

### Discussion:

This cross-sectional study design was carried in the dental outpatient department of SRM Kattankulathur Dental College and dental Camps in Chengalpattu district in June 2020 to September 2020. Sample size was determined as 200 with 95% level of confidence and 5% precision error based on similar literature.

This study was put forth for attaining the patient's perception towards the consequence for not replacing the missing teeth and their knowledge about the teeth replacement options and the reason for not undergoing the treatment.<sup>11</sup>

According to the results obtained, almost half the people know not replacing the missing teeth might interfere in their day-to-day personal life, self-esteem and are well known with the available replacement options. About 46.5% opted not replacing the missing teeth will cause difficulty in eating, 24.5% opted for speech difficulty, 19.5% are esthetically concerned which is in contrast with the study done by Yusof H, et al<sup>2</sup> where it is reported as 67% for difficulty in eating, 39% for speech difficulty and 48% for esthetic concerned.<sup>2</sup>

60% people are found to be aware of the available replacement options which is in contrast with that reported by Alsheri, et al. where they have reported as 87%<sup>1</sup>. Implants were known for 33%, fixed prosthesis like crown bridges for 27%, removable prosthesis 14% and 26% were not aware of any of the treatment modalities (Table No. 3)



which is comparatively lower than that reported in the study done by Yusof H, et al<sup>2</sup>.

When it comes to assessing the reason for not replacing the missing 27.5% had a financial reason, 16.5% did not know it was necessary, 16% had unsatisfactory previous experience and for 12% service is not accessible. (table 4). 61.5% has financial restraints towards the treatment modalities which is in contrast to the study done by Yusof H, et al<sup>2</sup>.

The replacement of lost teeth involves a multidisciplinary approach in both educating and treating the patients. The role of oral medicine and radiologist in diagnosing and educating the patient at the very first patient visit should be more emphasized. The knowledge and awareness can be improved through a variety of orientation methods and camps by public health dentistry.<sup>11</sup>

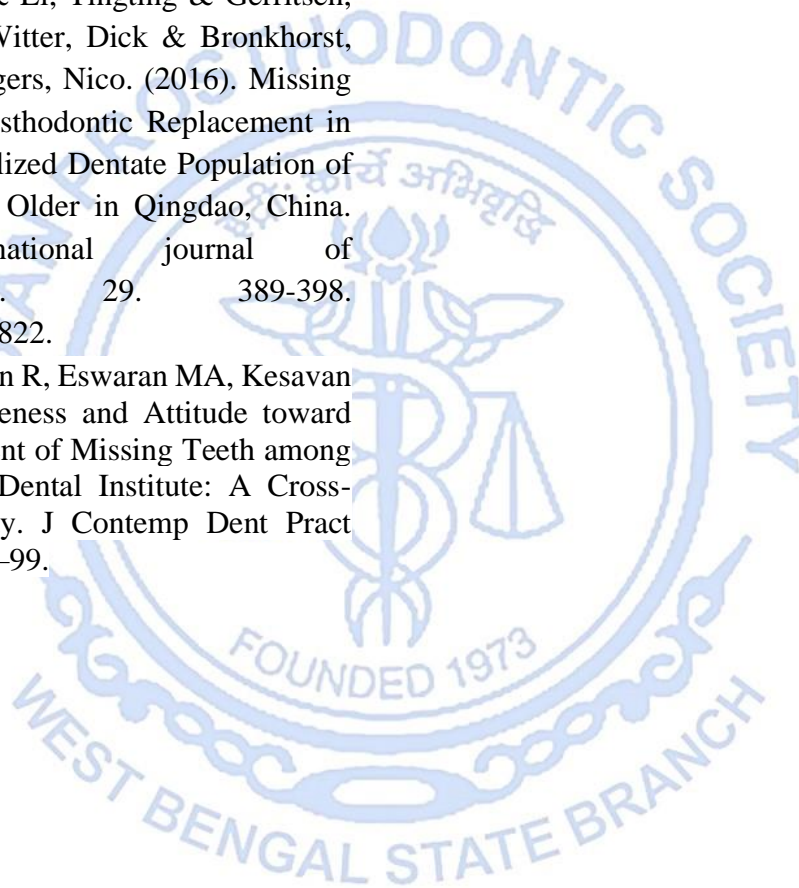
### Conclusion:

Considering the limitation of the study, it can be concluded from the cross-sectional study conducted among the patients in the dental out-patients department who have an acceptable level of awareness about the consequence of not replacing the missing teeth and are well known with the available replacement options but are concerned about the expenditure for the treatment. The awareness and consequences for not replacing the missing teeth can be enlightened by organizing camps, distributing pamphlets, or dental educational awareness programs.

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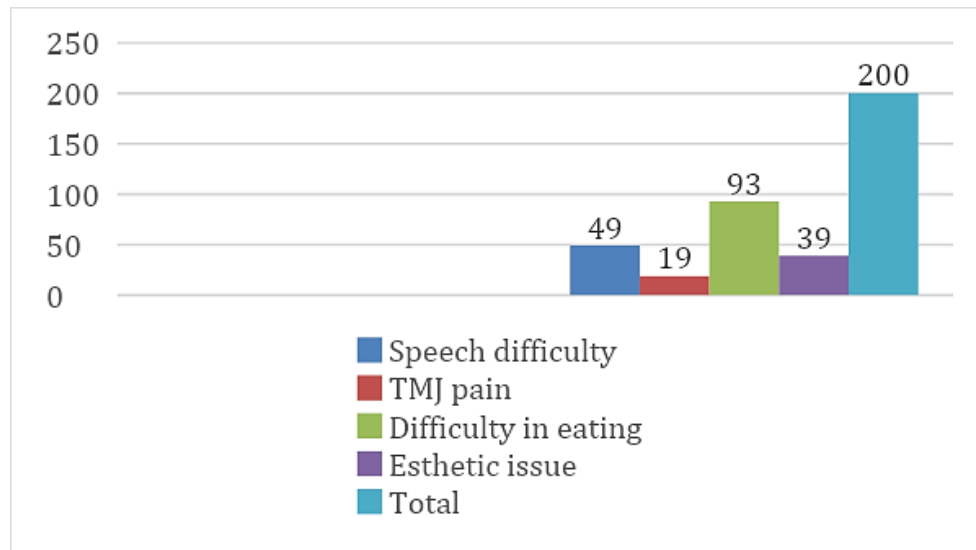
**TABLES****Table No. 1:**

Report based on the reason for not replacing missing teeth:

Variables	Frequency (%)	
	NO	Yes
Are you aware of the consequence of not replacing the missing tooth	110(55)	90(45)
Do you think not replacing the missing tooth cause other problems	107(53.5)	93(46.5)
Do you think not replacing the missing tooth doesn't affect personal life	121(60.5)	79(39.5)
Does missing tooth affects your self esteem	101(50.5)	99(49.5)
Do you know about the tooth replacement options	80(40)	120(60)
Is cost an issue in tooth replacement	77(38.5)	123(61.5)
Do you have any difficulties in treatment accessibility	109(54.5)	91(45.5)
Do you think maintaining oral health will be difficult after prosthesis	114(57)	86(43)
Are you concerned about multiple appointments in tooth replacement	80(40)	120(60)
Do you get anxious about the treatment	90(45)	110(55)
Do you think having a medical problem interferes with tooth replacement	112(56)	88(44)

**Table No. 2:**

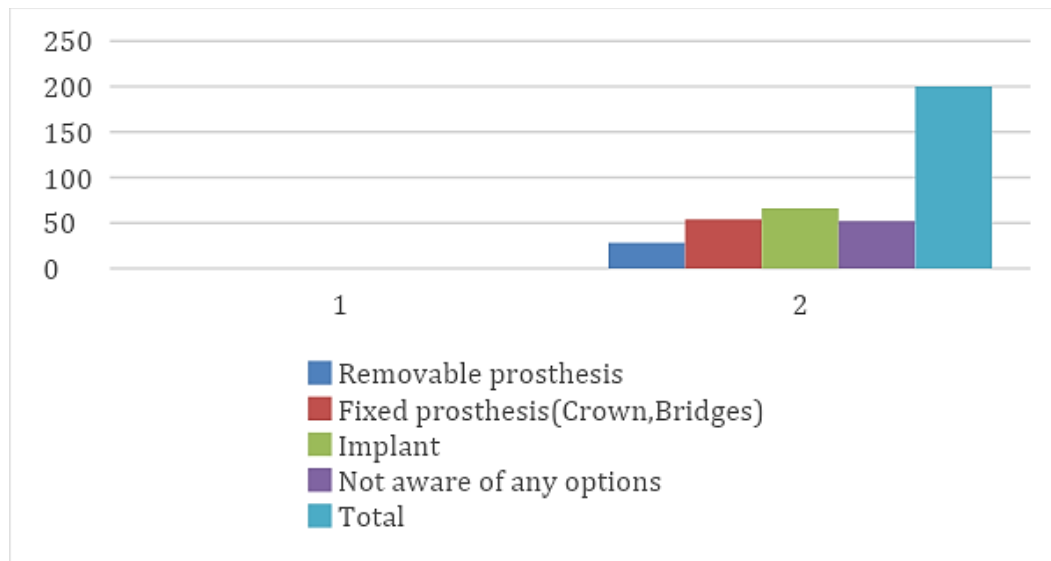
Graphical representation of the consequences of not replacing missing teeth:



	Frequency (%)
	What do you think of not replacing the tooth can cause
Speech difficulty	49(24.5)
TMJ pain	19(9.5)
Difficulty in eating	93(46.5)
Esthetic issue	39(19.5)

**Table No. 3:**

Graphical representation of available treatment modalities chosen by the patient:

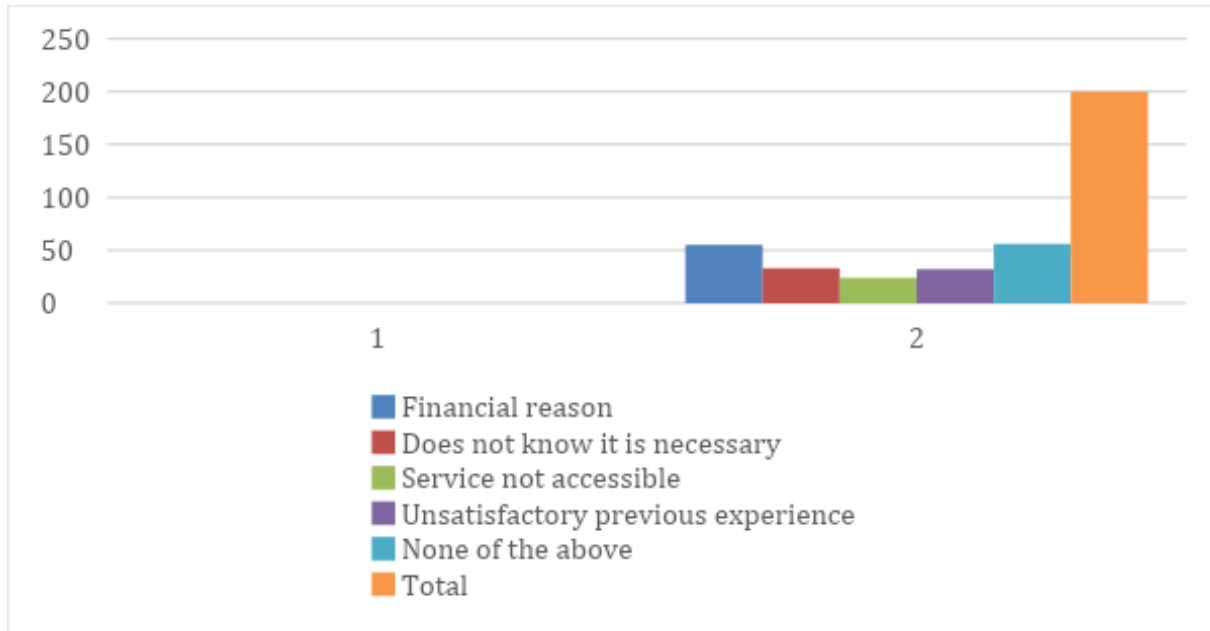


	Frequency (%)
	What are the tooth replacement options you are aware of
Removable prosthesis	28(14)
Fixed prosthesis(Crown,Bridges)	54(27)
Implant	66(33)
Not aware of any options	52(26)



**Table No. 4:**

Graphical representation, reasons for not relacing missing teeth



	Frequency (%)
	Reason for not replacing the missing tooth
Financial reason	55(27.5)
Does not know it is necessary	33(16.5)
Service not accessible	24(12)
Unsatisfactory previous experience	32(16)
None of the above	56(28)