



## DMFT INDEX IN THIRUVALLUR POPLATION

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### ABSTRACT

**Aim:** To examine a rural population to identify the DMFT index

**Objective:** DMFT index is a quantitative expression of a person's lifetime caries experience in the permanent teeth.

**Background:** Rural areas have poorer health in general and lower life expectancy compared with urban residents. The dental health awareness is very low amongst the rural area population. Improvement of oral health improves the knowledge and the way the individuals use health services efficiently.

**Methodology:** All the people conducted in the study were between the ages of 10-60 years and were selected at random which gave a sample size of 100 participants. The data regarding dental caries experience was recorded using DMFT index for permanent dentition on a structured format.

**Results:** The mean DMFT of the entire population was 2.58

**Conclusion:** Based on the findings of the present study, it can be concluded that frequency of brushing teeth twice daily was reported to be very low which reveals awareness of oral hygiene measures and its importance on oral health.

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## INTRODUCTION

Decades ago the WHO developed oral disease surveillance systems to monitor dental caries in children. The first global map with DMFT data on 12-year-olds was presented in 1969. This map indicated high prevalence of caries in industrialized countries and generally low values in the developing countries [1]

It is an infectious-contagious disease implying an imbalance of normal molecular interactions between the teeth's surface/subsurface and the adjacent microbial biofilm. It becomes expressed during a certain period of time as an accumulative demineralization which, if not treated, has the potential for producing cavities in the enamel and collateral damage in dentine and pulpar tissues [2] The DMFT index was created to express caries experience. The D component is for untreated caries, M for missing teeth due to caries, and F for filling (dental restorations for caries treatment). The T means index per tooth (as opposed to S per surface). The recommended protocol for oral health surveys is based only on clinical examinations and excludes dental radiographs [11] Most of the dental decay remains untreated with significant impacts on general health, quality of life, productivity, development and educational performance [3, 4, 5, 6].

It is crucial to control the disease process by assessing and rendering the treatment required along with spreading awareness regarding prevention. Several prevalence studies have been conducted and reported on different occasions on the dental caries and the treatment needs in developing countries such as India. However, not much data is available on the prevalence of dental caries and the treatment needs in rural areas of Chennai, India. Clinical indicators are important for the assessment of oral health and treatment needs, nevertheless their limitations must be considered.<sup>[12]</sup>The associated clinical and subjective indicators define a multi-dimensional assessment of the oral health condition.<sup>[13]</sup>The quality of life indicators related to oral health were defined as the measurements of how dental problems and oral disorders interfere in the normal functioning of an individual's life.<sup>[14]</sup>

Hence, identifying this disease and determining its magnitude and distribution in populations is a major step in controlling or maintaining it at acceptable levels. [15]

## MATERIALS AND METHODS

**Sample Collection:** The study was conducted in the Thiruvallur region of Chennai, Tamilnadu. The area is considered a rural area. All the people conducted in the study were between the ages of 10-60 years and were selected at random which gave a sample size of 100 participants. All the participants were included in the study after obtaining informed consent.

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**METHODOLOGY**

Apart from this, we recorded basic oral hygiene practices which included frequency of cleaning and materials used to clean the teeth were recorded. The data regarding dental caries experience was recorded using DMFT index for permanent dentition on a structured format. The tooth was considered carious (D) if there was visible evidence of caries or decay, including untreated dental caries. The missing (M component) included teeth with indications for extractions or teeth extracted due to caries. The filled (F component) included filled teeth. Scores were recorded based on their oral health statuses. Finally, the average was calculated, to find the mean DMFT score of the entire study population.

Average=Total DFMT/Total number of samples

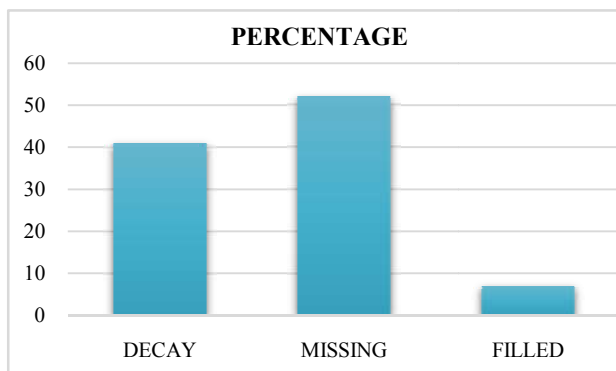
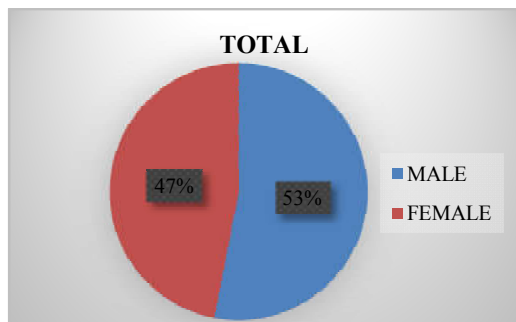
INCLUSION CRITERIA	EXCLUSION CRITERIA
Teeth lost due to extraction	Teeth lost due to periodontal diseases
The number of fillings	Abutment and Pontic excluded
Lesion clinically visible	Third molars are excluded

**RESULTS**

Among the TOTAL number of participants involved in this study, 53% of them were males and 47% were females. The mean DMFT of participants was 2.58. It was observed that 41% of the participants had decayed teeth, 52% of the participants had missing teeth and only 7% of the participants had filled teeth.

**DISCUSSION**

Majority of the participants were male. 53% of the study population was male and 47% were female. The DMFT score was the highest between the age groups of 31-40 with prevalence of high dental caries. This study inferred increased prevalence among the study groups and DFMT status is high. Hence meticulous oral hygiene awareness programs and caries prevention programs need to be done.



The present study showed that these formulas could be useful in studies of larger samples in areas with low prevalence of caries, as they can provide input to support oral health service planning and monitoring.

**CONCLUSION**

Proper application of preventive methods can reduce incidence of dental caries. This can be possible from the experience derived from the countries where the disease is in decline and it is the right time to get basic information about the disease pattern all over the country, its exact nature, degree of severity and to understand its association with specific factors. Thus, the knowledge of oral health at all ages and in different contexts is vital for decision-making in regard to preventive dental care.<sup>[7]</sup>

Despite incredible scientific advances and the fact that caries is preventable, the disease continues to be a major public health problem.<sup>[16]</sup> The World Health Organization (WHO) has ranked dental caries, as number three among all chronic noncommunicable diseases that require worldwide attention for prevention and treatment.<sup>[17]</sup>

Based on the findings of the present study, it can be concluded that frequency of brushing teeth twice daily was reported to be very low which reveals lacunae in the awareness of oral hygiene measures and its importance on oral health. This implies an urgent need for awareness initiative for preventive dental health behavior and attitudes, which is beneficial for the lifetime.<sup>[18]</sup>

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