

# Knowledge, Attitude, Practice about Prevention of Oral Diseases among Government Higher Secondary School Teachers in Madurai

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## Abstract

**Background:** A teacher with adequate knowledge, positive attitude toward oral health can always play an important role in health education of school children and be an inspiration for children. **Objective:** The objective of the study is to assess the knowledge, attitude, and practice about oral disease government higher secondary school teachers in Madurai. **Materials and Methods:** A cross-sectional questionnaire study was conducted among 250 higher secondary school teachers in Madurai. The data on oral health knowledge, attitude, and practices were collected using a structured questionnaire. The data were analyzed using descriptive statistics and Chi-square test. **Results:** A cross-sectional study was conducted among 250 school teachers, one hundred and seventy-four were male, and seventy-six were female. Out of 250 study participants, only (2.4%) reported tooth decay as infectious. Most of the study subjects were aware that tobacco usage may lead to oral cancer. Majority of the study participants 236 (94.4%) used tooth brush and tooth paste to clean their teeth. Majority of them that is 236 (94.4%) used tooth brush and tooth paste to clean their teeth. **Conclusion:** The study found the school teachers having better tooth brushing practices, poor knowledge about dental caries, and better knowledge about tobacco ill effects. It was also found that they believed better training to the teachers in the subject of oral disease prevention improves oral health in school children.

**Keywords:** Attitude, oral health, practices, school teachers

## INTRODUCTION

Schools are ideal site for the presentation of health-related information. They offer an efficient and effective way to reach over 1 billion children worldwide and, through them, their families and community members.<sup>[1]</sup> School teachers can play a major role in oral health education programs at school levels. Schools have a tremendous capacity to be supportive of programs involving preventive health and preventive dentistry for children.<sup>[2]</sup>

School environment, curriculum, and extracurricular activity could all be utilized for promoting student's oral health and general health as well. The school years are a time where many elements of attitude, behavior, and life skills are still forming. School teachers, with their educational experience and contact with students, can actively contribute to Student's health promotion, provided that they receive enough training and support to do so.<sup>[3]</sup>

The teacher is a dynamic force of school and plays a pivotal role in educational system.<sup>[4]</sup> The school teachers by virtue of their opportunity to influence large number of children and their parents are a significant resource to implement the recommendation for the use of alternative personnel an effort to reduce the burden of preventable diseases such as oral diseases.<sup>[5]</sup>

The many advantages of utilizing the services of school teachers in health education and health promotion activities are continuity in instructions being given, integration of

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general and oral health with other activities as well as low costs associated with such programs.<sup>[6]</sup>

The lack of adequate oral health knowledge, training on aspects of oral health, lack of resources, lack of time, and failure to incorporate oral health into the curriculum have been implicated as barriers to teaching oral health education in schools. Since school teachers may play a significant role in passing preventive information and health promotion, it is important that their own oral health knowledge, attitude, and behavior conform to professional recommendations. A teacher with adequate knowledge, positive attitude toward dental health can always play an important role in health education of school children and be a role model for children, lay people, and the community at large. The need to make students understand the raising oral complications is essential and we thought that school environment is the proper place to nurture the oral hygiene behaviors. Hence, this study was conducted among the school students to detect the level of awareness and knowledge they have on maintaining their oral hygiene. It becomes important to assess the level of oral health knowledge, attitude, and practice of school teachers who are in such a vital position while molding the future generation of society.<sup>[6]</sup> Hence, a study was conducted to assess the knowledge, attitude, and practice about oral disease among school teachers in Madurai.

### Aims and objectives

The objectives of the survey are:

- To assess the knowledge about oral diseases among government higher secondary school teachers in Madurai
- To assess the attitude toward oral disease among government higher secondary school teachers in Madurai
- To assess oral hygiene practices among government higher secondary school teachers in Madurai.

## MATERIALS AND METHODS

### Study design

A cross-sectional study.

### Study area

The present study was conducted at the Madurai.

### Study population

The study was conducted among govt higher secondary school teachers in Madurai.

### Sample size

The study was conducted among 250 government higher secondary school teachers in Madurai. The sample size was calculated using Epi Info sample size calculation software.

$$N = zp(1 - p)/d^2$$

The sample size was calculated to be 250.

### Sampling methodology

Convenient sampling methodology was followed.

### Obtaining the approval from authorities

Ethical clearance to conduct the study was obtained from the Institution Review Board of the Dental College and Hospital.

### Inclusion and exclusion criteria

#### Inclusion criteria

- Those teachers present and willing to participate on the day of the survey were included.

#### Exclusion criteria

- Teachers who are absent on the day of the survey were excluded
- Teachers who are not willing to participate in the survey were excluded.

### Research instrument

A preformed self-administered questionnaire was used to assess the knowledge, attitude, practice about oral disease among school teachers.

### Statistical test

Descriptive statistics and Chi-square test.

## RESULTS

A cross-sectional study was conducted among 250 school teachers in Madurai. Out of the two hundred and fifty study subjects, one hundred and seventy-four were male and seventy six were female. Thus, a majority, i.e., 69.6% of the study subjects were male. Nearly half of the study subjects have <10 years of teaching experience and a very few of the study subjects have teaching experience of more than years [Table 1].

### Knowledge related to oral health

Very few study participants (2.4%) reported tooth decay as infectious. Majority of them (87.2%) replied as they do not know whether tooth decay is infectious or not.

About 202 (80.8%) of the study subjects said that carbonated beverages/soft drinks affect the teeth adversely; about 32 (12.8%) replied as carbonated beverages/soft drinks does not affect the teeth adversely and 16 (6.4%) reported that they do not know.

Nearly half of the study participants (48.4%) responded as fluorides are used to protect teeth from decay.

Most of the study subjects were aware that tobacco usage may lead to oral cancer [Table 2].

### Practices related to oral health

Majority of the study participants 236 (94.4%) used tooth brush and tooth paste to clean their teeth. Out of 250 study

**Table 1: Gender distribution among the population**

Gender	Percentage
Male	69.6
Female	30.4

subjects, 191 (76.4%) said that they brushed twice daily and about 59 (23.6%) brushed their teeth once daily.

Majority of the study participants 185 (74%) used tooth brush to clean their inter dental area. Only 33 (13.2%) of the study subjects used dental floss; 13 (5.2%) used tooth pick to clean their interdental area and about 19 (7.6%) used needles or safety pins.

### Attitude related to oral health

More than half of the study participants 148 (59.2%) responded that knowledge of dentistry among school children can be increased by including a chapter on prevention of oral disease in school curriculum and by giving better training to the teachers in the subject of oral disease prevention. Out of 250 study subjects, only 4 (1.6%) reported that responsibility of teacher should include supervising tooth brushing in school, and hence, very few of the study participants were interested in supervised tooth brushing in schools. Out of 250 study participants, 41 (16.4%) reported that they use home remedy for curing tooth ache; 176 (70.4%) said that they visited a dentist; 20 (8%) visited a general physician while 13 (5.2%) of the study subjects said that they took painkiller for curing their tooth ache.

## DISCUSSION

Oral health problems are preventable and their early onset is reversible. However, in several countries, a considerable number of children, their parents, and teachers have limited knowledge of the causes and prevention of oral disease.

According to Frazier, "Given an existing body of scientific knowledge about measures for preventing oral diseases, society has a responsibility to educate its youngsters about these measures. School children, as educated by the teachers, are not important as far as prevention of disease among themselves in the present, but also their future role as adults and opinion leaders of next generation. Schools are the one place where most school-age children congregate 6 or 7 h a day, 9 months a year.<sup>[7]</sup> A successful school health programs depend on the response by teachers. Some of the oral health programs were reported unsuccessful as the teachers received limited instructions on oral health education.<sup>[8]</sup> Through school teachers, there is the potential for reaching all children, but if they themselves are misinformed about oral health and preventive measures, they cannot assist in developing well-informed students.<sup>[9]</sup> Hence, a cross-sectional study was conducted to assess school teacher's knowledge, attitude, and practice related to oral care among government school teachers of Tambaram taluk.

The present study was conducted among 250 school teachers and all the study participants used tooth brush to clean their teeth whereas in a study done by Khan *et al.*, 2001<sup>[10]</sup> among school teachers from Riyadh, Saudi Arabia, about 66.6% of the study subjects used brush to clean their teeth.

**Table 2: Knowledge related to oral health**

Questions	Response from participants (%)
Tooth decay	
Tooth decay as infectious	2.4
They do not know whether tooth decay is infectious or not	87.2
Carbonated beverages	
Carbonated beverages/soft drinks affect the teeth adversely	80.8
Carbonated beverages/soft drinks does not affect the teeth adversely	12.8
They do not know	6.4
Fluorides	
Fluorides are used to protect teeth from decay	48.4
They do not know	51.6

In the present study, nearly half of the study participants responded as fluorides protect teeth from decay. Whereas in a study conducted by Dawani *et al.*, 2012<sup>[11]</sup> among schoolteachers in public schools of Karachi city, 66% of them responded as fluoride as anticariogenic and also in a study conducted by Tangade *et al.*<sup>[12]</sup> among school teacher from primary school of Belgaum city, Karnataka, India, 55.7% of study subjects thought that fluoride protects the teeth from decay.

In the present study, 84.88% of school teachers knew that oral cancer could be prevented by avoiding tobacco usage which is similar to the studies conducted by Shodan Mangalore *et al.*, 2013 among school teachers in Dharwad, India, in which it was reported as 92.70% of the study participants knew that oral cancer can be prevented by avoiding tobacco usage and study conducted by Shodan M Raj *et al.*, 2011 among school teachers in Dharwad, India, in which it was reported as 87.23% of the study participants tobacco usage reported that tobacco usage may cause oral cancer.

## CONCLUSION

It was found from the study that the school teachers have better tooth brushing practices but there was a lack in knowledge about flossing. They also found to have poor knowledge about dental caries, better knowledge about tobacco ill effects. It was also found that they believed better training to the teachers in the subject of oral disease prevention improves oral health in school children.

However, lack of motivation toward supervised tooth brushing in schools indicates that there is a great need to improve the oral health knowledge, attitude, and practices among school teachers.

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### Conflicts of interest

There are no conflicts of interest.

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