

# Knowledge, Attitudes and Practices towards Oral Health among School Teachers in Chengalpattu Taluk, Kanchipuram District Tamilnadu

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## ABSTRACT

### BACKGROUND

Dental professionals are often invited by different school authorities to deliver lectures on oral health and to provide preventive services. The usual target population behind most endeavors comprises the, young school children, and it is with the aim of improving their oral health knowledge, that such programmes are held. However, the fact remains that any child's knowledge and practices are by and large a reflection of what he sees or is taught in his immediate surroundings. We wanted to assess the level of knowledge, attitudes and practices towards oral health among schoolteachers in Chengalpattu taluk, Kanchipuram district.

### METHODS

Using simple random sampling technique, a questionnaire study was carried out among 50 government schoolteachers and 50 private schoolteachers in Chengalpattu Taluk. The questionnaire used was a closed ended, self-administered questionnaire consisting of 30 questions pertaining to Knowledge, Attitudes and Practices towards oral health

### RESULTS

About 37.9% of government teachers and 36% of private teachers had knowledge regarding dental caries, 48% of government teachers and 34.9% of private teachers had knowledge regarding gum diseases and 26% of government teachers and 22.7% of private teachers had knowledge regarding malocclusion. Moreover 41% of government teachers and 32.1% of private teachers had knowledge regarding oral cancer. 83.9% schoolteachers were getting information regarding oral health through dentists or doctors. When enquired regarding practices, 63% of schoolteachers brushed their teeth twice daily.

### CONCLUSIONS

Knowledge was highest among the government schoolteachers compared to private schoolteachers among Chengalpattu taluk in Kanchipuram district.

### KEY WORDS

Oral Health, School Teacher, Knowledge, Attitude, Practices

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**BACKGROUND**

Dental professionals are often invited by different school authorities to deliver lectures on oral health and to provide preventive services. The usual target population behind most endeavours comprises the, young school children, and it is with the aim of improving their oral health knowledge, that such programmes are held. However the fact remains that any child's knowledge and practices are by and large a reflection of what he sees or is taught in his immediate surroundings.<sup>1</sup>

Dentist and dental hygienists are often asked to participate in school oral health programmes at the elementary level. Schools are ideal place for preventive programmes because service can be made available to all children, including those who, for a variety of reasons, may not be receiving professional care. School teacher's resource are to conduct oral health education. According to Kenneya school administrator, "school have a tremendous capacity to be supportive of programs involving preventive health and preventive dentistry for children". Elementary schoolteachers traditionally have played a role in educating children about how to prevent oral diseases and promote oral health. Teachers typically are involved in additional activities, such as lending support for, and/or actively participating in various school- based primary prevention programs. Hence who else but the schoolteachers, who spend a considerable amount of time with the children are to be influenced in order to inculcate sound knowledge and ideal practices among the young minds. It is the teachers who are the passive recipients of the lectures delivered by the visiting dentist. It is they, who can be trusted with the role of secularly carrying out various preventive services in the long run. Health education programs in schools may be conducted by external groups such as public health agencies, dental societies, and private dentists, offices, or be provided internally by school nurses and teachers. The advantages of using school personnel are the potential for improved continuity of instruction and lowered cost of the service. Thus increasing oral health knowledge of the schoolteachers provides an opportunity to educate an important segment of the public that has an access to the large population of the young people. Teachers have the unique potential of preparing a future generation of correctly informed health care.<sup>2</sup>

The number of teachers worldwide at the primary school level has been reported to be around 23.9 million. By virtue of their opportunity to influence large numbers of children and their parents, teachers represent a significant resource in implementing the recommendation for the use of alternative personnel in the struggle against preventable diseases such as oral diseases. The use of teachers in school health education and health promotion holds many advantages including continuity in instructions being given, integration of general and oral health with other activities as well as the overall low costs associated with such programmes. In addition to the direct benefits to students, school health education and health promotion programmes which include health promotion for staff have been shown to have beneficial effects for teachers in terms of reduced teacher absenteeism and improved morale and quality of classroom instructions. The use of teachers in

health education, however, carries certain disadvantages, the major one being that teachers may be insufficiently trained to deliver such messages. This lack of training on aspects of oral health has been shown to prevent teachers from participating in teaching pupils effectively. In addition, lack of resources, lack of time, and failure to incorporate oral health into the curriculum has been implicated as barriers to teaching oral health education in schools.<sup>3</sup>

Lack of teacher training may be a significant barrier to the success of health-promoting school programmes and may in fact have resultant unfavorable repercussions on the pupils' health. Several international studies have been conducted to investigate elementary schoolteachers' oral health knowledge, attitude and willingness to participate in dental health programmes. Evidence from the majority of developing countries where these studies have been conducted have shown that teachers, though deficient in their knowledge of oral health, have still shown interest in providing oral health education to their pupils. These studies also indicate that while the majority of the teachers were interested in participating in dental health education, they were less motivated to participate in those activities which involved the use of school time and which required their direct supervision. Other studies have shown that some teachers, though quite knowledgeable with respect to oral health, had poor levels of motivation and behaviour related to oral health.<sup>4</sup>

The role of education, particularly the early education is imperative, since it is easier to shape the behaviour of individuals when they are relatively at a young age. Children spend almost up to seven hours at education facilities where they are constantly learning, even outside classrooms. They easily pick up knowledge, habits and skills. Therefore educators, schoolteachers in specific have the ability to not only shape but also change certain attitudes among their pupils along with the collaborated effort of the parents. Teachers by teaching about oral health care will not only be improving and promoting for oral health, but preventing the oral health problems as well. The important role of teachers in oral health education cannot be ignored, but most teachers are not trained for this task and they have low abilities and willingness for it. Oral health education sessions conducted by teachers at school were observed to be deficient in content and in methods. Teachers' knowledge about oral health and current methods of prevention is incomplete, and inaccurate in some instances. Several studies have shown that most teachers have positive attitude towards oral health.

Teachers with sound knowledge and positive attitude about oral health care and practices will be motive in promoting and maintaining the oral health care of school going children. Hence this study was designed to assess the knowledge, attitude and practice towards oral health among schoolteachers in Chengalpattu Taluk of Kanchipuram district.<sup>5</sup>

**METHODS**

After obtaining ethical clearance from the Institutional Review Board of Meenakshi Academy of Higher Education and

Research, Chennai, this cross-sectional survey was carried out to evaluate the level of knowledge, attitudes and practices towards oral health among schoolteachers in Chengalpattu taluk of Kanchipuram district. The source of data was primary and was obtained through as a questionnaire survey. The survey was conducted among Government and private schoolteachers who were employed in a schools of Chengalpattu taluk. Schoolteachers employed in the schools of Chengalpattu taluk were included in the study. Teachers who are not willing to participate and teachers who were absent on the days of examination were excluded from the study.

**Obtaining Approval from the Authorities**

The nature and purpose of the study was explained to the heads of the schools (Correspondent, Principal, Headmaster/ Headmistress, etc.) and prior permission was obtained to conduct the study in their schools.

**Pilot Study**

A pilot study was carried out to pre-test the questionnaire and check the feasibility of the study. A total of 50 government and 50 private schoolteachers participated in the pilot study. Following the pilot study necessary corrections were done and the revised questionnaire was prepared for the survey.

**Sample Size**

Following the pilot study, the required sample size was calculated using the formula:

$$n = \frac{(Z_{\alpha} + Z_{\beta})^2 (P_1Q_1 + P_2Q_2)}{(P_1 - P_2)^2}$$

Where n- is the required sample size per group,  $Z_{\alpha}$ - Z value for  $\alpha\%$  level of significance (Normally 5%),  $Z_{\beta}$ - Z value for  $(1 - \beta)$  % of power,  $P_1$ - Proportion in Group 1 (% based on knowledge correct responses among government teacher),  $Q_1 = 1 - P_1$ ,  $P_2$ - Proportion in Group 2 (% based on knowledge correct responses among private teacher),  $Q_2 = 1 - P_2$ . Here,  $P_1 = 64.0$ ,  $P_2 = 56.0$ ,  $Q_1 = 36.0$ ,  $Q_2 = 44.0$ ,  $Z_{\alpha} = 1.96$  for 5% of level of significance,  $Z_{\beta} = 1.282$  for 90% of power. By applying the above formula the required sample size per group was 389. Based on the knowledge with power of the study set at 90%, as the maximum sample size 400 government and 400 private schoolteachers were assigned for the study.

**Sampling Methodology**

Simple Random Sampling methodology was used for the present study. There were 16 government and 18 private schools in Chengalpattu taluk. The schools were randomly selected one after the other to reach the required sample size. All the teachers who were employed in the selected government and private schoolteachers formed the study population. In this study 13 government and 8 private schools were randomly selected to reach the required sample size population.

**Collection of Data**

Data was collected by using self-administered closed ended questionnaire. The questionnaire was developed in English language. Each questionnaire contained two parts: the first

part with general information of the participants and the second part dealt with the questions regarding knowledge, attitude and practices towards oral health. The questionnaire consisted of 30 questions. The knowledge questions were divided as given in the flowchart. 5 questions on attitudes and 5 questions on oral hygiene practices. The pre-tested self-administered questionnaires were given to all study subjects at their place of work. The questionnaire was explained in order to avoid any ambiguity. They were assured of the confidentiality of their responses and were requested to give appropriate answers. The filled questionnaires were collected on the same day.

Government Schools	No. of Teachers Examined	Private Schools	No. of Teachers Examined
Govt. Higher Secondary School Chengalpattu	48	Alison Kasi Higher Secondary School	64
Aringhar Anna Municipal High School, MPL Primary School Anumanthaputheri	52	Little Jacky Matriculation Higher Secondary School	53
MPL Primary School Vedappar St Chengalpattu	23	RKM Boys Higher Secondary School	61
MPL High School church road Chengalpattu	19	St. Joseph Higher Secondary School	58
MPL Primary School Mettu St Chengalpattu	46	RKM Girls Higher Secondary School	62
MPL high School Mariammankoil St Chengalpattu	21	SDA Higher Secondary School	52
MPL High School Mettu St Chengalpattu		RKM Primary School	22
MPL Primary School Vallampost Chengalpattu	34	Progress M S	28
Govt. middle School Kathan St Chengalpattu	41		
MPL High School Vadamalli St Chengalpattu	16		
MPL High School	29		
Big Nathamst Chengalpattu	31		
	40		
13 Government schools	400	8 Private Schools	400

**Table 1. List of Schools Examined**

**Statistical Analysis**

The resulting data was coded, and statistical analysis was done using SPSS (Statistical Package for Social Sciences) version 17.0 software. In the present study, frequency and percentage were calculated, along with mean and standard deviation; p - value was fixed at <0.05. A comparison between the level of knowledge among government and private schoolteachers was done using Chi-square test.

**RESULTS**

**Demographic Features (Table 2)**

The total study population was 800 schoolteachers, of which 343 (42.9%) were  $\leq 30$  years aged and 457 (57.1%) members were  $\geq 30$  years. Mean average of age study subjects are 41.16 with 260 (32.5%) being males and 540 (67.5%) being females. 486 (60.8%) participants had 1-5 years of teaching experience, 157 (19.6%) of the participants had 6-10 years of teaching experience and 157 (19.6%) participants had above 11 years of teaching experience. 238 (29.8%) participants were diploma holders, and 347 (43.4%) participants were under graduates and 215 (26.9%) participants were postgraduates. 4 (0.5%) participants had of monthly income less than 10000. 295 (36.9%) participants had monthly

income 10001-15000 and 501 (62.6%) participants had monthly income above 15001. (Table 2).i

**Knowledge Regarding Dental Caries (Table 3)**

Among the study subjects, 43.2% said that the tooth decay was infectious, 56.8% said that the tooth decay was not infectious. The differences found was statistically significant (p<0.05). 45.9% responded that the brushing regularly will prevent dental decay. 1.4% said that the rinsing after every meal will prevent dental decay. 52.8% of them responded that avoiding sweets and sticky foods, brushing regularly, rinsing after every meal will prevent dental decay. The differences noted was statistically significant (p<0.05). 22.1% of the study subjects said that the eating fibrous food is a method of preventing dental caries. 72.5% said that eating fibrous food is not a method of preventing dental caries. 5.4% said that they don't know the eating fibrous food is a method of preventing dental caries. The differences found was statistically significant (p<0.05). 33.4% said that the using sealant on the teeth will prevent dental caries. 48.1% said that the using sealant on the teeth will not prevent dental caries. 18.5% said that they don't know the using sealant on the teeth will prevent dental caries. The differences found was statistically significant (p<0.05). 65.1% of the study subjects said that the using fluoride toothpaste helps to repair early carious lesions. 21.1% said that the using fluoride toothpaste was not help to repair early carious lesions. 13.8% said that they don't know if using fluoride toothpaste helps to repair early carious lesions in teeth. The differences found was not statistically significant (p>0.05).

**Knowledge Regarding Gum Diseases (Table 4)**

Result revealed that 20.6% of the study subjects said that the tobacco chewing was considered to be an important factor in the causation of gum diseases 74% said that the tobacco chewing was not considered to be an important factor in the causation of gum diseases. 5.4% said that they didn't know that tobacco chewing was considered to be an important factor in the causation of gum diseases. The differences found was not statistically significant (p>0.05). 40% said that the rinsing their mouth after food was believed to be a significant factor in the prevention of gum diseases. 60% said that rinsing their mouth after food was believed to be not a significant factor for the prevention of gum disease. The differences found was statistically significant (p<0.05). Result revealed that the 51% said that the gum disease can be progressive, leading to loss of bone that supports the teeth. 42% said that gum disease cannot be progressive, leading to loss of bone that supports the teeth. 7% said that they don't know if gum disease can be progressive, leading to loss of bone that supports the teeth. The differences found was statistically significant (p<0.05). 59% said that bleeding on brushing was an early sign of gum disease. 31% said that bleeding on brushing is not an early sign of gum disease. 10% said that they didn't know if bleeding on brushing was an early sign of gum disease. The differences found was highly statistically significant (p<0.05). 60% said that the regular and proper tooth brushing would protect them from gum diseases. 21% said that the using soft food would protect from gum diseases. 19% said that they did not know which would protect from gum diseases. The differences found was not statistically significant (p>0.05).

Variables		N	%
Age group	≤ 30 yrs.	343	42.9
	> 30 yrs.	457	57.1
Gender	Male	260	32.5
	Female	540	67.5
Years of Experience	≤ 5 yrs.	486	60.8
	6 - 10 yrs.	157	19.6
	> 10 yrs.	157	19.6
Educational Qualification	Diploma	238	29.8
	UG	347	43.4
	PG	215	26.9
Income	<Rs 10000	4	.5
	Rs 10001 - 15000	295	36.9
	>Rs 15000	501	62.6
	<b>Total</b>	<b>800</b>	<b>100.0</b>

**Table 2. Demographic Details of School Teachers Based on Age, Gender, Years of Experience, Education, and Income**

Sl. No.	Questions	School Teachers N (%)	P-Value
1	Is tooth decay infectious		0.045
	Yes	346 (43.2%)	
	No	454 (56.8%)	
2	How can you prevent dental decay?		0.021
	Avoid sweets and sticky foods	0%	
	Brushing regularly	367 (45.9%)	
	Rinsing after every meal	11 (1.4%)	
	All of the above	422 (52.8%)	
3	Eating fibrous food is a method of preventing dental caries		0.03
	Yes	177 (22.1%)	
	No	580 (72.5%)	
	Don't know	43 (5.4%)	
4	Using sealant on the teeth will prevent dental caries		0.04
	Yes	267 (33.4%)	
	No	385 (48.1%)	
	Don't know	148 (18.5%)	
5	Using fluoride toothpaste helps to repair early carious lesions in teeth.		0.006
	Yes	521 (65.1%)	
	No	169 (21.1%)	
	Don't know	110 (13.8%)	

**Table 3. Distribution of School Teachers Based on Knowledge Responses Regarding Dental Caries**

Sl. No.	Questions	School Teachers N (%)	p - Value
6	Tobacco chewing is considered to be an important factor in the causation of gum diseases		0.065
	Yes	160 (20.6%)	
	No	595 (74%)	
	Don't know	45 (5.4%)	
7	Rinsing your mouth after food was believed to be a significant factor in the prevention of gum diseases		0.011
	Yes	318 (40%)	
	No	482 (60%)	
	Don't know		
8	Gum disease can be progressive, leading to loss of bone that supports the teeth.		0.01
	Yes	405 (51%)	
	No	331 (42%)	
	Don't know	64 (7%)	
9	Bleeding on brushing is an early sign of gum disease.		0.002
	Yes	473 (59%)	
	No	312 (31%)	
	Don't know	15 (10%)	
10	How do you protect yourself from gum disease?		0.76
	Regular and proper tooth brushing	456 (60%)	
	Using soft food	300 (21%)	
	Using vitamin A	0%	
	I do not know	44 (19%)	

**Table 4. Distribution of School Teachers Based on Knowledge Responses Regarding Gum Diseases**

**Knowledge Regarding Malocclusion (Table 5)**

45.5% said that the thumb sucking is considered to be an important factor in the development of protruded teeth. 49.3% said that thumb sucking is not considered to be an important factor in the development of protruded teeth. 5.3% said that they don't know if thumb sucking is considered to be

an important factor in the development of protruded teeth. The differences found was not statistically significant ( $P>0.05$ ). 32.5% said that tongue thrusting is considered to be a cause for protruded teeth. 50.2% said that tongue thrusting is not considered to be a cause for protruded teeth. 17.3% said that they don't know if tongue thrusting is considered to be a cause for protruded teeth. The differences found was not statistically significant ( $P>0.05$ ). 18.6% said that the habit of thumb sucking is normal up to 1-2 years. 65.6% said that the habit of thumb sucking is normal up to 3-4 years. 15.8% said that the habit of thumb sucking is normal up to 5-6 years. The differences found was statistically highly significant ( $p<0.01$ ). 35.8 % said that the premature loss of primary teeth can cause drifting of the adjacent teeth into the space. 46.4% said that the premature loss of primary teeth cannot cause drifting of the adjacent teeth into the space. 17.8% said that they did not know if premature loss of primary teeth can cause drifting of the adjacent teeth into the space. The differences found was statistically significant ( $p<0.05$ ). 29.4% said that using of the space maintainers during early loss of primary tooth will prevent malalignment of eruption impermanent teeth. 70.6 %said that the using of the space maintainers during early loss of primary tooth will not prevents malalignment of eruption impermanent teeth. The differences found was statistically not significant ( $p<0.05$ ).

care consumers and decision makers. The current study is an attempt to tap the knowledge attitude and practices of the schoolteachers about the oral health.

The present study, majority 41% of the schoolteachers had level of knowledge about oral health. A study conducted by Ramen Haloi et al (2012) among schoolteachers in Mathura City showed that 67.9% schoolteachers had knowledge on oral health. This finding was high when compared to present study 44% of government teachers and 36.7% of private teachers had knowledge on oral health. Study was conducted by Amit Vanka et al (2012) among teachers in Bhopal, Central India showed that 61.9% of government teachers and 44.5% of private schoolteachers had knowledge on oral health. This findings was higher when compared to present study. When compared to gender 47.1% female teachers had better knowledge than 41.2% male teachers. A study conducted by Pradeep et al (2011) among primary schoolteachers in Belgaum city showed that 43% of female teachers and 23% of male teachers had knowledge on oral health. This findings was less when compared to present study.

Among the study subjects, 47.6% of government teachers and 38.8% of private teachers responded that tooth decay is infectious. The differences found were not statistically significant. A study was conducted by Pradeep et al (2011) among government primary schoolteachers in Belgaum city showed that 73.3% responded that tooth decay is not infectious. This findings were higher when compared to our present study. 54.4% of government teachers and 51.2% of private teachers responded that avoiding sweets and sticky foods, brushing regularly, rinsing after every meal will prevent dental decay. The differences found were statistically not significant. A similar study was conducted by Amit Vanka et al (2012) among schoolteachers in Bhopal which showed that avoiding sweets and sticky foods, brushing regularly, rinsing after every meal will prevent dental decay was being 46.5% and 42.8% respectively.

Moreover 22.8% of government teachers and 21.5% of private teachers responded that the eating fibrous food is a method of preventing dental caries. The differences found were statistically highly significant. A study conducted by Ramroop et al (2011) among schoolteachers in Trinidad showed that the eating fibrous food is a method of preventing dental caries was to be 35% and 38% respectively. These findings was higher when compared to present study this differences might be not aware of dietary foods. 27.6% of government teachers and 39.3% of private teachers responded correctly that using sealant on the teeth will prevent dental caries the differences found were statistically significant. A study was conducted by Mazar Salah et al (2012) among basic schoolteachers in Sudan showed that 16.3% government teachers said that the using sealant on the teeth will prevent dental caries. This findings was less when compared to the present study difference might be not aware to the recent advances in dentistry.

Result revealed that 22.8% of government teachers and 19.3% of private teachers said that the using fluoride toothpaste helps to repair early carious lesions in teeth. It was higher when compared to study conducted by Mazar Salah et al (2012) among basic schoolteachers in Sudan and Ramroop et al (2011) among schoolteachers in Trinidad showed that the used fluoride toothpaste helps to repair early carious lesions in teeth was being 45.1% and 34% respectively. 22.8% of

Sl. No.	Questions	School Teachers N (%)	p-Value
11	Thumb sucking is considered to be an important factor in the development of protruded teeth Yes No Don't know	364 (45.5%) 394 (49.3%) 42 (5.3%)	0.056
12	Tongue thrusting was considered to be a cause for protruded teeth Yes No Don't know	260 (32.5%) 402 (50.2%) 138 (17.3%)	0.34
13	Habit of thumb sucking is considered to be normal up to the ages of 1-2 years 3-4 years 5-6 years 7-8 years	149 (18.6%) 525 (65.6%) 126 (15.8%)	0.004
14	Premature loss of primary teeth can cause drifting of the adjacent teeth into the space Yes No Don't know	286 (35.8%) 371 (46.4%) 143 (17.8%)	0.04
15	Use of space maintainers during early loss of primary tooth prevents malalignment of eruption impermanent teeth Yes No Don't know	235 (29.4%) 565 (70.6%)	0.55

**Table 5. Distribution of School Teachers Based on Knowledge Responses Regarding Malocclusion**

## DISCUSSION

Schools, with their special characters amongst other behavior affecting institutes, provide a big opportunity for promoting school children's health. School environment, curriculum, and extracurricular activity could all be utilized for promoting student's oral health and general health as well. 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. School teachers have the unique potential of preparing the future generation of correctly informed health

government teachers and 17.3% of private teachers responded that tobacco chewing was considered to be an important factor in the causation of gum diseases the differences found were statistically highly significant. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that factor in the causation of gum diseases was 55% and 46% respectively it was higher when compared to present study. Result revealed that 45.4% of government teachers and 34.8% of private teachers said that the rinsing their mouth after food was believed to be a significant factor in the prevention of gum diseases. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that 90% government teachers and 77% private teachers the rinsing their mouth after food was believed to be a significant factor in the prevention of gum diseases. This findings was higher when compared to present study.

Result revealed that the 51.9% of government teachers and 49.3% of private teachers responded that gum disease can be progressive, leading to loss of bone that supports the teeth. A study was conducted by Benly George et al (2010) among schoolteachers in Chennai showed that 87% schoolteachers agreed that the gum disease can be progressive, leading to loss of bone that supports the teeth. These findings was high when compared to present study. 51.9% of government teachers and 39% of private teachers said that the thumb sucking was considered to be an important factor in the development of protruded teeth. The differences found were statistically significant ( $p < 0.05$ ). A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that 66% and 44% said that the thumb sucking was considered to be an important factor in the development of protruded teeth. 37.1% of government teachers and 28% of private teachers said that tongue thrusting was considered to be a cause for protruded teeth the differences found were not statistically significant ( $p < 0.05$ ). A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city which showed that tongue thrusting was considered to be a cause for protruded teeth was being 50.2% and 47% respectively.

67.7% of government teachers and 63.5% of private teachers responded correctly that thumb sucking habit normal aged between 3 to 4 years. The differences found were statistically significant. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city which showed that. 85% and 66%. 41.4 % of government teachers and 30.5% of private teachers said that the premature loss of primary teeth can cause drifting of the adjacent teeth into the space. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that 77.8% teachers agreed that the premature loss of primary teeth can cause drifting of the adjacent teeth into the space. The differences found was high when compared to present study. 68.7% of government teachers and 71.8% of private teachers said that the tobacco smoking is a cause for oral cancer the differences found were statistically highly significant. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that 77.6% and 88% said that the tobacco smoking is a cause for oral cancer.

52.1% of government teachers and 26% of private teachers said that the smokeless tobacco was related to oral cancer. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that the smokeless

tobacco was related to oral cancer was being 87% and 65% respectively. The differences found was high when compared to present study. 65.4% of government teachers and 53.5% of private teachers said that the consumption of alcohol will result in oral cancer it was less compare to study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that 53.8% government teachers and 45% private teachers responded that consumption of alcohol will result in oral cancer.

30.6% of government teachers and 15.3% of private teachers said that the spicy food was associated with the development of oral cancer. A study was conducted by Raj et al (2011) among the schoolteachers in Dharwad city showed that the spicy food was associated with the development of oral cancer was being 36.1% and 43% respectively. The differences found were high when compared to present study in the present study, they exhibited a lack of knowledge regarding the oral health. The utilization of dental services is quite poor in this area and preventive services like sealants and topical fluorides.

#### **Attitudes Based on Oral Health**

Among the study subjects 65.4% said that they visited a dentist on when had a toothache. A study was conducted by Ramen Haloi et al (2012) among schoolteachers in Mathura city showed that 59.8% said that they visited a dentist. Results revealed that 46% said that visited a dentist regularly every 6 to 12 months. A study was conducted by Benly George et al (2010) among schoolteachers in Chennai showed that 31.5% said that visited a dentist regularly every 6 to 12 months it was less compared to present study. 69.8% said that dentist/doctor is the best to motivate people towards their oral health. 17.8% said that Internet/TV/Radio is the best to motivate people towards their oral health. 12.2% said that Newspapers/books/ magazines is the best to motivate people towards their oral health. A study was conducted by Suresh Kumar et al (2010) among elementary schoolteachers in Andhra Pradesh showed that 55.5% said that dentist/ doctor is the best to motivate people towards their oral health. 31.8% said that Internet/TV/Radio is the best to motivate people towards their oral health. 12.7% said that Newspapers/books/ magazines is the best to motivate people towards their oral health. 40.1% said that oral health was important as general health. A study conducted by Ramroop et al (2011) among schoolteachers in Trinidad showed that 29.9% said that oral health was important as general health it was low when compared to present study. 32.9% said that it is necessary to treat decay in primary teeth. A study was conducted by Ramroop et al (2011) among schoolteachers in Trinidad showed that 44% said that necessary to treat decay in primary teeth it was high compared to present study.

#### **Oral Hygiene Practices Based on Oral Health**

23% schoolteachers said that the methods of cleaning their teeth by Horizontal and vertical technique. A study was conducted by Suresh Kumar et al (2012) among elementary schoolteachers in Andhra Pradesh which showed that 63% revealed that the method of cleaning their teeth was by Horizontal and vertical technique. It was high when compared to present study. 31.4% said that frequency of brushing their

teeth was twice daily. A study was conducted by Suresh Kumar et al (2012) among elementary schoolteachers in Andhra Pradesh which showed 21.3% of the study population said that frequency of brushing their teeth was twice daily, it was low when compared to present study. 100% said that toothbrush and toothpaste is the materials used for cleaning their teeth. A study conducted by Suresh Kumar et al (2010) among elementary schoolteachers in Andhra Pradesh showed that 91% of the study population toothbrush and toothpaste for cleaning their teeth and it was less compared to present study. 48.4% said that the tooth pick were used for cleaning between the teeth. A study was conducted by Pradeep et al (2011) among primary schoolteachers in Belgaum city which showed that 24.7% said that Toothpick were used for cleaning between the teeth. 43.3% school teacher's frequency of eating sweet/chocolates/pastries occasionally. A study was conducted by Pradeep et al (2011) among primary schoolteachers in Belgaum city which showed that 38.3% of the study population eat sweet/chocolates/pastries occasionally it was less when compared to present study.

### CONCLUSIONS

More than 50% of schoolteachers in the present study had inadequate knowledge regarding oral disease and its prevention. Knowledge was more among government schoolteachers compared to private school teachers. Knowledge was more among female schoolteachers compared to male schoolteachers. Majority of the teachers were getting their source of information through dentist. Most of the teachers were brushing their teeth only once daily.

#### Recommendations

Proper training and practical support should be provided along with educational materials regarding on oral health. Schools should organize seminars, and workshops for the

teachers regarding oral health. School teachers should be made cornerstones in conducting community school dental health program<sup>6,7,8</sup>.

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