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**Mahadevswamy KM**  
Nursing Tutor, JSS School of  
Nursing, Chamarajanagar,  
Karnataka, India

**Sandyashree B**  
Nursing Tutor, JSS School of  
Nursing, Chamarajanagar,  
Karnataka, India

**Usha NS**  
Nursing Tutor, JSS School of  
Nursing, Chamarajanagar,  
Karnataka, India

**Vinaykumar G**  
Principal, JSS School of  
Nursing, Chamarajanagar,  
Karnataka, India

**Corresponding Author:**  
**Mahadevswamy KM**  
Nursing Tutor, JSS School of  
Nursing, Chamarajanagar,  
Karnataka, India

## A questionnaire survey about oral hygiene among school children studying at JSS public school, Chamarajanagar

**Mahadevswamy KM, Sandyashree B, Usha NS and Vinaykumar G**

### Abstract

One of the major public health problem is oral diseases. More than three-fourth of the world population would have experienced dental carries or bad breathe once in their life time <sup>[1, 2]</sup>. Children who have dental carries are hampered from performing normal activities such as eating, playing, and socializing. This may lead to lack of concentration, which might hinder their performing efficiency <sup>[3, 4]</sup>. It is better prevent than cure any diseases. Prevention can only be done by proper education. Before educating the children, it is important evaluate their knowledge about the same <sup>[6]</sup>. This knowledge will lead to change in the attitude and behaviour of the children in their everyday activities <sup>[7]</sup>.

**Objective:** This study aimed to evaluate the knowledge and create awareness among school children about oral hygiene.

**Result:** About 88% brush twice daily, Majority of participants about 45.33% use horizontal method of brushing, about 54.67% uses toothpaste which contains fluoride, about 54.67% Students uses mouth wash, about 81.33% students uses floss, about 61.33%students uses tongue cleaner, about 41.33% students brush after every meal, about 70.67% students do gargle after every meal, about 49.33% students change their brush once in a month, about 66.67% students think soft drinks affect dental health, only 32% have noticed bleeding in the gums while brushing, only 58.67% knew dental disease impact general body health, only 29.33% students experienced pain and discomfort in teeth and gums, Around 49.33% students agree regular dental visit is necessary, only 28% students go for dental check-up, about 76% students had fear for visiting dentist, about 54.67% students think bacterium is always present in mouth, about 78.6% students think bacterium is responsible for decaying, around 68% students think there are special gels and cements to prevent tooth decay.

**Keywords:** Oral hygiene, flossing, brushing

### Introduction

“Poor oral health care can result in poor overall health” (George Taylor).

Oral health is one of the most fundamental elements for maintaining the general physical health and well-being of every individual. A healthy mouth performs many of the vital functions such as eating, speaking, and participating in facial expressions effortlessly. The most visible part of the mouth in terms of aesthetics is the teeth. Teeth are the first thing that people notice when it comes to socializing. Healthy and decay-free teeth are able to perform many of their functions such as mastication and speech, along with providing self-confidence to individuals, as aesthetics is equally important to many individuals <sup>[1]</sup> Oral hygiene is the practice of maintaining the mouth clean and healthy so that oral diseases affecting the oral cavity and its surrounding structures are prevented. Maintaining good oral hygiene is considered to be a lifelong habit, and these oral habits are said to begin in an early stage of life <sup>[2]</sup>. Periodontal diseases, dental caries, malocclusion, and oral cancer are among the most prevalent dental diseases affecting people worldwide as well as in the Indian community.<sup>[3]</sup> Dental caries, with a prevalence as high as 60-80% in children, is a major public health problem in India <sup>[4]</sup>. The children are more prone to develop oral health problems primarily due to the lack of attention being given by them, as compared to adults who are well mature to understand the importance of healthy oral hygiene. Furthermore, children who require special care in order to maintain their oral hygiene are even more vulnerable to develop oral health difficulties because of the illness they suffer from <sup>[5]</sup>. Poor dental hygiene among the school children has several effects on the children, some more major than others. One of these effects is physical pain which leads to sleeping problems, eating problems and behavioural problems (Low *et al.*, 2000), all of which at such a young age should be avoided as much as possible.

The fact is that the little attention paid to the issue of oral hygiene of school aged children especially in the developing countries could be fatally dangerous in advance cases such as in patients with oral cancer, which is the eighth most common worldwide cancer.<sup>[6]</sup> Hence the prevention of dental problems is of utmost importance for school children<sup>[6]</sup>. Schools are the best place to assess the knowledge and practice of oral health of children and also educate them, because at this age lifelong beliefs and essential skills are developed<sup>[7, 8]</sup>. Teachers and parents play a vital role in improving the oral health condition of the children. Regular inexpensive interventions through health education at the school level have also been proven to be effective for a short term.<sup>[9]</sup> Our study was designed to assess the oral health practices and knowledge among school going children.

### Need for the study

Oral health is indivisible from general health and well-being. Oral diseases are prevalent worldwide and significantly burden global economies and people's health, considerably reducing the quality of life of those affected. The Global Burden of Disease study reported that oral conditions affected 3.9 billion people<sup>[1]</sup>. Dental caries (tooth decay) and periodontal disease are the most prevalent oral diseases globally<sup>[2]</sup>. Approximately half or more of the world's population suffered from periodontal diseases, and about 11.2% suffered from severe periodontitis<sup>[3]</sup>. Similarly, dental caries was most prevalent in permanent teeth, affecting around 2.4 billion people, whereas early childhood caries is a silent global epidemic, affecting 621 million children<sup>[4]</sup>, negatively affecting their quality of life and well-being<sup>[5]</sup>. Due to the changes in demographic profiles, including the aging population, the cumulative burden of oral diseases and conditions has increased significantly. The number of people with untreated oral conditions increased from 2.5 billion in 1990 to 3.5 billion in 2015, with a 64% upsurge in Disability Adjusted Life Years (DALYs) throughout the world<sup>[17]</sup>. In India, about 85% to 90% of adults have dental cavities, along with about 60 to 80% of children. Also, around 30% of children have misaligned jaws and teeth. Over 50% of Indians with dental health issues receive treatment or advice from someone other than a dentist, such as chemists. About 51% of Indians use a toothbrush and toothpaste to brush their teeth. Around 28% brush their teeth the recommended two times a day. Therefore, access to information about dental health and how to properly maintain one's oral health would prevent many issues and improve the overall state of dental health in India<sup>[18]</sup>. In recent years, oral health has been recognized to be an integral part of general health. Poor oral health of children can have a negative impact on their over-all development and social well-being. Among all other oral diseases, dental caries is the most common one. Dental caries is a widely prevalent disease worldwide. According to global oral health data bank, prevalence varies from 49% to 83% across different country<sup>[1]</sup>. Untreated caries can lead to permanent damage of the tooth as well as spread of infection throughout the body, which in turn will affect the quality of life of the children. Proper guidance is essential for the growing children regarding oral hygiene and it is proven that schools are the best centre for effectively implementing comprehensive health care programme, as children are easily accessible at schools<sup>[19]</sup>. Hence this study attempts to assess the knowledge on Oral hygiene among school children of selected school in Chamarajanagar district.

### Objective

This study aimed to evaluate the knowledge and create awareness among school children about oral hygiene.

### Methodology

The descriptive study was conducted among 150 students in the age group 10-13 years both male (male = 90) female (female=60) were included in the study. A self-made questionnaire which had 25 questions to evaluate the knowledge about oral hygiene maintenance was formulated.

### Research design

The design adopted is exploratory descriptive approach.

### Settings

The present study was conducted at JSS Public School, Chamarajanagar through online

### Sample size and sample technique

150 students were selected from JSS Public School studying 6<sup>th</sup> and 7<sup>th</sup> standard, Chamarajanagar.

### Data collection method and period

Data collected through online by using Google form on 4<sup>th</sup> Aug 2021.

### Results

**Table 1:** Distribution of participants according to age n=150

Age in years	Frequency	Percentage
10	4	2.67
11	48	32.00
12	66	44
13	32	21.33

Majority of participants are 12years of age

**Table 2:** Distribution of participants based on Class n=150

Class	Frequency	Percentage
6 <sup>th</sup> std	80	53.33
7 <sup>th</sup> std	70	46.67

Majority of participants are 6<sup>th</sup> STD

**Table 3:** Distribution of participants based on Sex n=150

Sex	Frequency	Percentage
Female	60	40
Male	90	60

Majority of participants are male students

**Table 4:** Distribution of participants based on Mother's education n=150

Mother's education	Frequency	Percentage
Uneducated/illiterate	0	0
Primary level	14	9.33
High-school level	40	26.67
PUC and above	96	64

Majority of participants mothers education level is PUC and above

**Table 5:** Distribution of participants based on father's education n=150

Fathers education	Frequency	Percentage
Uneducated/illiterate	4	2.67
Primary level	18	12
High-school	26	17.33
PUC and above	102	68

Majority of participants fathers education level is PUC and above

**Table 6:** The table indicating the response for question on brushing twice daily n=150

Response	Frequency	Percentage
Yes	132	88
No	18	12

Majority of participants, about 88% brush twice daily

**Table 7:** The table indicating the response for question on method of brushing n=150

Response	Frequency	Percentage
Horizontal	68	45.33
Vertical	26	17.32
Circular	56	37.33

Majority of participants about 45.33% use horizontal method of brushing

**Table 8:** The table indicating the response for question on toothpaste contain fluoride n=150

Response	Frequency	Percentage
Yes	68	45.33
No	82	54.67

Majority of participants about 54.67% uses toothpaste which contains fluoride

**Table 9:** The table indicating the response for question on use of mouth wash n=150

Response	Frequency	Distribution
Yes	82	54.67
No	68	47.33

Majority of participants, about 54.67% Students uses mouth wash

**Table 10:** The table indicating the response for question on use of floss n=150

Response	Frequency	Percentage
Yes	28	18.67
No	122	81.33

Majority of participants, about 81.33% students uses floss

**Table 11:** The table indicating the response for question on use of tongue cleaner n=150

Response	Frequency	Percentage
Yes	92	61.33
No	58	38.67

Majority of participants, about 61.33% students uses tongue cleaner

**Table 12:** The table indicating the response for question on Do you brush after an every meal n=150

Response	Frequency	Percentage
Yes	88	58.67
No	62	41.33

Majority of participants, about 41.33% students brush after every meal

**Table 13:** Do you think excessive sweet consumption can cause decay n=150

Response	Frequency	Percentage
Yes	118	78.67
No	32	21.33

Majority of participants about 78.67% think excessive sweet consumption cause decay

**Table 14:** The table indicating the response for question on do you gargle after every meal n=150

Response	Frequency	Percentage
Yes	106	70.67
No	44	29.33

Majority of participants, about 70.67% students do gargle after every meal

**Table 15:** The table indicating the response for question on how often do you change your toothbrush n=150

Response	Frequency	Percentage
1 month	74	49.33%
3 month	52	34.67%
6 month	24	16%

Majority of participants, about 49.33% students change their brush once in a month

**Table 16:** The table indicating the response for question on do you think soft drinks affect dental health n= 150

Response	Frequency	Percentage
Yes	100	66.67%
No	50	33.33%

Majority of participants, about 66.67% students think soft drinks affect dental health

**Table 17:** The table indicating the response for question on have you noticed bleeding of your gums while brushing n =150

Response	Frequency	Percentage
Yes	48	32%
No	102	68%

Majority of participants, about 32% have noticed bleeding in the gums while brushing

**Table 18:** The table indicating the response for question on dental disease impact general body health n=150

Response	Frequency	Percentage
Yes	88	58.67%
No	62	41.33%

Majority of participants, about 58.67% knew dental disease impact general body health

**Table 19:** The table indicating the response for question on how often in the last 12months did you experienced pain or discomfort in your teeth and gums n=150

Response	Frequency	Percentage
Many times	16	10.67%
Occasional	44	29.33%
Never	90	60%

About 29.33% students experienced pain and discomfort in teeth and gums

**Table 20:** The table indicating the response for question are regular dental visit necessary n =150

Response	Frequency	Percentage
Yes	74	49.33%
No	76	50.37%

About 49.33% students agree regular dental visit is necessary

**Table 21:** The table indicating the response for question on do you go for dental check up n =150

Response	Frequency	Percentage
Yes	42	28%
No	108	72%

About 28% students go for dental check up

**Table 22:** The table indicating the response for question on reason behind not visiting the dentist n = 150

Response	Frequency	Percentage
Fear	114	76%
High cost	36	24%

Majority of participants, about 76% students had fear for visiting dentist

**Table 23:** The table indicating the response for question on do you think bacterium is always present in your mouth n=150

Response	Frequency	Percentage
Yes	82	54.67%
No	68	44.33%

Majority of participants, about 54.67% students think bacterium is always present in mouth

**Table 24:** The table indicating the response for question on do you think bacterium is responsible for decaying n=150

Response	Frequency	Percentage
Yes	118	78.6%
No	31	20.6%
No answer	1	0.6

Majority of participants, about 78.6% students think bacterium is responsible for decaying

**Table 25:** The table indicating the response for question do you think there are special gels and cements to prevent tooth decay n=150

Response	Frequency	Percentage
Yes	102	68%
No	48	32%

Majority of participants, about 68% students think there are special gels and cements to prevent tooth decay

**Conclusion**

The overall knowledge about oral hygiene among the children was moderate. More knowledge must imparted about flossing, Brushing techniques, preventive aids available for dental carries and children have fear about dental visit.

**Recommendations**

This study can be done for large sample. Comparative study can be done for different age groups.

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