

## ORIGINAL ARTICLE

### Assessment of Oral Health Knowledge and Behavior among school going Children

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#### ABSTRACT:

**Background:** Oral diseases have a significant impact on an individual's social life. Its impact is often seen in the physical appearance and functional aspects like chewing and can negatively affect individuals especially children. Oral health programmes can help to minimize the condition by increasing awareness. **Aim:** To assess the oral health knowledge and behavior among school going children.

**Method:** A total of 400 school going children were included for the present study. Stratified random sampling method was used to select the sample. All 400 children were examined for decayed, missing, and filled permanent teeth. The subjects completed a questionnaire that aimed to evaluate young school children's behavior, knowledge, and perception towards oral health and dental treatment. **Results:** 70% children knew what dental caries is whereas 35% had no knowledge about plaque. Only 52% children considered visited dentist regularly important. Most common oral hygiene method used was brushing. Majority of children brushed once daily. **Conclusion:** Children and parents perception towards oral hygiene plays immense role in caries prevention. Care should be taken to improve parents as well as children attitude towards dental treatment by conducting awareness camp.

**Key words:** Oral Health, Behaviour, Children

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**INTRODUCTION:** Dental caries is considered to be one of the most prevalent disease among children.<sup>1,2</sup> Dental caries is multifactorial in nature there are various risk factors like, composition of saliva, salivary flow, micro-organism, socio economic status, life style, eating habits and poor hygiene altogether can lead to caries.<sup>2,3,4</sup> The prevalence of dental caries among school going children in many countries was found to be 90%.<sup>5</sup> As found in studies in excess of 50 million school hours go in vain in a year because of issues related with oral health resulting in lack of performance of students and their success in later stages of their life.<sup>6</sup>

Very little is known about the oral health attitudes and behavior of children from developing countries. Comprehensive preventive programs for oral health care are still lacking in countries like India. Oral health negligence is a serious issue and is often overlooked. Parents and children should be provided with dental health education to improve

the oral health standard. According to the literature studies have shown that dental care has been systematically organized to improve dental health attitudes among children and the young.<sup>7</sup> So we aimed to assess the knowledge, attitude, and oral health care practices among school going children and its association with caries.

**MATERIAL AND METHOD:** A total of 400 students aged 8 to 15 years both males and females were selected for the study. The samples were recruited from both public and private school children. A cross sectional based study design was planned. Students below 8 years were not included for the present study because they were too young to understand the importance of questionnaire. Ethical clearance and prior informed consent was obtained from school authorities and regional education officer. A written informed consent was obtained from parents. Children suffering from chronic systemic disease and mental disorder

were excluded from the study. A total of 400 children studying in different schools both private and public sector were selected. Of the 400 samples selected 150 were boys and 250 were girls. Caries prevalence was determined according to W.H.O using the decayed, missing, and filled teeth (DMFT) index, all examinations being done by a single trained examiner.<sup>8</sup>

The questionnaire selected for the present study was designed to evaluate the knowledge, attitudes, and practice of primary school children regarding their oral health and dental treatment. Bilingual questionnaire consisting of questions based on oral health were selected. Oral health knowledge included questions like oral hygiene maintenance, frequency of sugar consumption, knowledge and attitude toward oral health care as well as sources of information on oral health. The validation of the questionnaire was done. Questionnaire was distributed among children and importance of answering was explained. Children were asked to answer the question in supervision of teachers and communication between students was not allowed while answering the question.

**STATISTICAL ANALYSIS:**

Questionnaire was gathered and data was obtained. Data were entered using SPSS package descriptive data were obtained. Chi-square test was used in statistical evaluation of bivariate frequency distributions.

**RESULTS:** A total of 400 students from both public and private schools were selected for the current study. There were 9 questions which were based on knowledge of oral health in regards to dental caries. Children were provided

with three options: yes, no and don't know. Of the 400 children 80 said they knew about dental plaque (20%), 180 (45%) said they disagree about plaque and 140 i.e. 35% said they don't know about plaque. 324/400 children were aware about dental caries i.e. 81% while 108/400 i.e. 27% said they don't know anything regarding caries. 280/400 said brushing prevents caries i.e. 70%, 44/400 i.e. 11% said they disagree whereas 76/400 i.e. 19% said they don't know. 100/400 i.e. 25% said brushing prevent bleeding gums, 50% said they disagree and 25% children said they don't know. 45% children disagree with the fact that brushing reduces bad breathe. 208/400 children i.e. 52% sais regular visit to dentist is necessary (Table 1)

240/400 i.e. 60% students said they use toothbrush for cleaning their teeth, 60/400 i.e. 15% used dental floss, 208/400 children i.e. 52% said they used chewing stick, 100/400 i.e. 25% used mouthwash regularly, 160/400 i.e. 40% preferred toothpick. 60/400 i.e. 15% said they don't use anything to brush their teeth whereas 9% said they used more than one cleansing aid (Table 2). Of the 400 children 112 i.e. 28% brushed once daily, 60/400 i.e. 15% brushed twice daily, 9% said they brushed once a week, 12 %said they brushed 2-3 times a week, 9% said they brushed 2-3 times a month. Whereas 108/400 said they never brush (Table 3). 50/400 i.e. 12.5% said they visited dentist in past 6 months, 6.25% said they visited dentist in past 12 months whereas 20% said they visited dentist in 1-2 years. 65% said they don't remember their last visit to dentist (graph1). In present study 30% children said they underwent extraction in their last visit to dentist where 25% they don't know the purpose behind their last visit to dentist (table 4).

**Table 1: Total number of school children on knowledge about Dental diseases & prevention**

	Yes (Agree)	Percentage	No (Disagree)	Percentage	Do not Know	Percentage	Total Number
<b>Knowledge of dental plaque</b>	80	20%	180	45%	140	35%	400
<b>What is dental caries</b>	324	81%	40	10%	36	9%	400
<b>Knowledge about gingivitis</b>	100	25%	192	48%	108	27%	400
<b>Tooth brushing helps in cleaning teeth</b>	280	70%	60	15%	60	15%	400
<b>Brushing prevents dental caries.</b>	280	70%	44	11%	76	19%	400
<b>Tooth cleaning prevents bleeding from gums.</b>	100	25%	200	50%	100	25%	400
<b>Tooth brushing removes bad breath.</b>	120	30%	180	45%	100	25%	400
<b>Sugar causes dental caries.</b>	160	40%	180	45%	60	15%	400
<b>Dental plaque causes dental caries.</b>	60	15%	160	40%	180	45%	400
<b>Regular visits is necessary</b>	208	52%	100	25%	92	33%	400

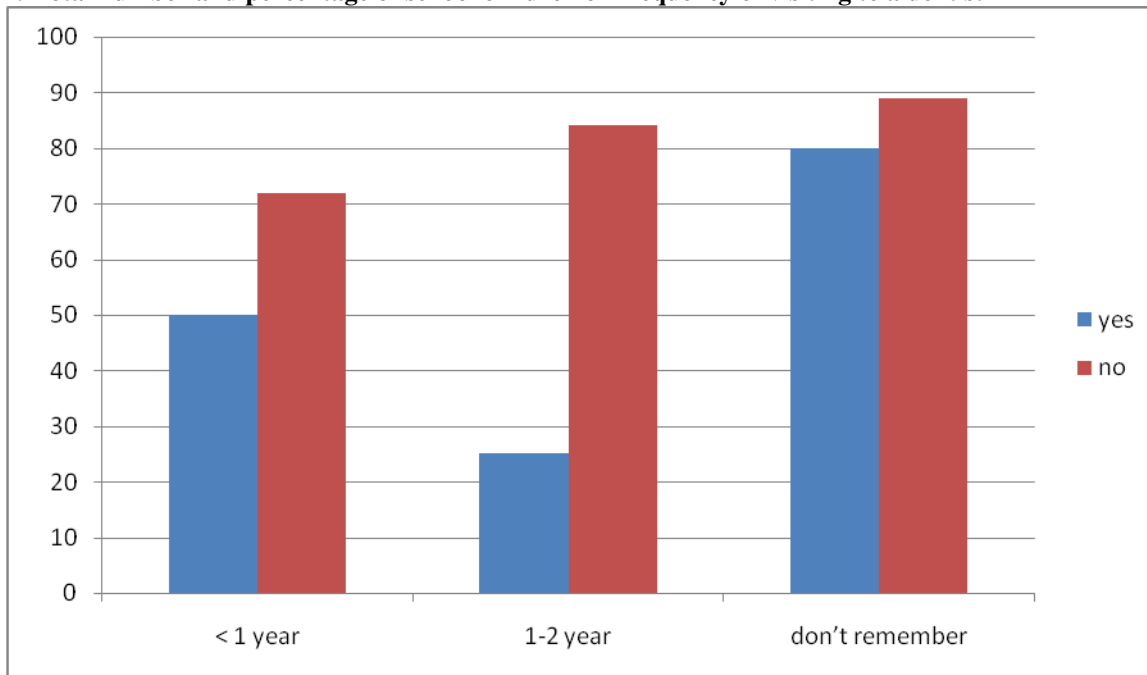
**Table 2: Total number and percentage of school children on different methods of cleaning teeth**

	Yes	Total Number	Percentage
Toothbrush	240	400	60%
Dental Floss	60	400	15%
Chewing stick	208	400	52%
Mouthwash	100	400	25%
Toothpick	160	400	40%
Do not use anything	60	400	15%
More than one	36	400	9%

**Table 3: Total number and percentage of school children on frequency of toothbrushing**

	Yes	Total Number	Percentage
Once a day	112	400	28%
Twice a day	60	400	15%
Once a week	36	400	9%
Several times a week (2-3 times)	48	400	12%
Several times a month (2-3 times)	36	400	9%
Never brush	108	400	27%

**Graph 1: Total number and percentage of school children on frequency of visiting to a dentist**



**Table 4: Service provided in last visit**

		Total Number	Percentage
Examination	84	400	21%
X ray	36	400	9%
Restoration	60	400	15%
Extraction	120	400	30%
Don't know	100	400	25%

## DISCUSSION:

In present study we focused on the oral health knowledge, attitudes and hygiene practices of school going children. Studies have reported that dental caries is a microbial disease and it affects everyone irrespective of age.<sup>9</sup> dental caries is a serious issue to be dealt worldwide. Teachers and parents can help to prevent dental caries by making an effort to teach children regarding the importance of oral hygiene. Public health care should arrange awareness camp where importance of brushing and regular dental visits should be explained to parents/guardians. Informative video tapes regarding oral hygiene should be shown to children in schools. Oliveira ER et al suggested that lack of knowledge is the of the risk factor for increasing rate of caries.<sup>10</sup>

Based on the result of present study it was found that only 20% children knew about plaque. A majority of the children i.e. 81% were aware about dental caries, whereas only 27% said they don't know anything regarding caries. 70% said brushing prevents caries however 45% children disagreed with the fact that brushing reduces bad breathe. In current study it was found that 12.5% children visited dentist in past 6 months, 6.25% said they visited dentist in past 12 months whereas 20% said they visited dentist in 1-2 years. 65% said they don't remember their last visit to dentist. Study conducted by Siddibhavi MB et al concluded that those children who have not been exposed to dental visit for long tend to fear more.<sup>11</sup> Studies have suggested that KAP model is considered to be one amongst prominent way to figure out behavior and knowledge of parents and children but at times it can be biased.<sup>12</sup> The result of our study suggested that 60% students used toothbrush for cleaning their teeth,. However only 15% used dental floss and only 9% used more than one cleansing method daily. Only 28% brushed their teeth once daily. Al-Sadhan S in their study reported that 62% cases used toothbrush which was similar to our result.<sup>13</sup>

## CONCLUSION:

Within the limitation of our study the result obtained showed that oral health knowledge and practice among study participants were poor and needs to be improved. Brushing twice daily is still not considered important. Use of other oral hygiene aids like dental floss and mouthwash were still very rare. For an efficient delivery of oral health care services a bigger focus has to be given on prevention

of oral disease rather than only trying to improve the treatment of its consequences.

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