

# Oral Hygiene awareness and practices among the Nepalese school children in Bhaktapur

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## Abstract

### *Objective:*

Oral health diseases are detrimental to the quality of life and can have impact on self-esteem, eating ability, nutrition and health of an individual. Oral health of an individual depends on awareness and attitude, children with inadequate oral health knowledge and awareness is more likely to have oral disease. Therefore objective of this study was to evaluate the oral health awareness and practices of school children in Bhaktapur.

### *Materials and methods:*

310 school children were randomly selected from schools in Bhaktapur, between the ages 4 to 14 years. For the children below the age of 11, questions were asked by the dentist and answers were marked according to the answers given by the students after hearing the choices from the questionnaire. School children above the age of 11, filled the questionnaire themselves.

### *Result*

Results showed that all the school children selected were using tooth brush and tooth paste to clean their teeth. 66% of the students were brushing once daily and only 34% of students were brushing twice a day. Our study also revealed that 73% children were brushing only in the morning before meal whereas only 27% students were brushing after meal in the night. Only 54% of students were rinsing always after meal whereas 9% never rinsed their mouth after meal. This shows that children were not aware that they should be brushing their teeth twice a day after meal and rinse their mouth after every meal. Our study also showed that most of the students were not aware of interdental cleaning tools like dental floss and interdental brush, 41% of students were unaware when the tooth brush had to be changed and only 44% students had previous dental visit whereas 54% of students never visited any a dentist before.. It was also seen that 67% students were using horizontal brushing strokes and only 21% were using vertical strokes and 12% were using circular strokes

### *Conclusion*

School health awareness program is the first and most important step in preventing oral disease and it should start from Preschools so that this habit is incorporated from childhood into an individual. Not only school children; parents, teachers, care takers must also be made aware so that this habit is continued and reinforced every day.

### *Keywords:*

Bass technique, oral health, tooth brush

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## Introduction

Oral diseases are a big public health problem with high prevalence and incidence all around the world<sup>1</sup>. Improving oral health in the rural children is a big challenge in a developing country like Nepal. The “inverse care law” is all too prevalent in dentistry deprived communities that suffer the most, they have the most need but receive the fewest resources.<sup>2</sup> United State department of health and human services stated that no one can be truly healthy unless he or she is free from the burden of oral and craniofacial diseases and conditions.<sup>3</sup> Oral health of an individual mainly depends on awareness and attitude. Attitude of an individual is greatly reflected by their own experiences, cultural perceptions, familial beliefs and other life situations which has a strong influence on oral health behaviour.<sup>4</sup> Various studies have shown that there is a strong association between increased knowledge and better oral health.<sup>5</sup> Therefore children with inadequate oral health knowledge may be more likely to have dental diseases than children with adequate knowledge. The objective of this study

was to evaluate the oral health awareness and practices among the Nepalese school children in Bhaktapur with the help of questionnaires.

## Materials and Methods

Total numbers of 310 school children were selected from two different schools in Bhaktapur. Children were from 4 to 14 years of age. For the children below the age of 11, questions were asked by the dentist and answers were marked according the answers given by the students after hearing the choices from the questionnaire. School children above the age of 11, filled the questionnaire themselves. Oral health awareness and practices of the students was evaluated by questions on how and when they clean their teeth, the frequency of cleaning the teeth and changing of the toothbrush, if the students are aware of basic interdental cleaning tools like floss and interdental brush, and their past dental visit. Response format included forced choice format in which subjects choose one or more responses from the provided list of options. Explanation of the questions was provided to the children.

## Results:

S.N.	Question	Response	Percentage
1.	How do you clean your teeth?	Tooth brush	310(100%)
		Finger or any other tools	0
2.	How many times do you brush your teeth?	Once Daily	206(66%)
		Twice Daily	104(34%)
3.	When do you brush your teeth?	Before Meal	225(73%) Morning
		After Meal	85(27%) Night
4.	Materials used to clean your teeth	Tooth Paste	306(99%)
		Tooth Powder	4(1%)
5.	Frequency of change of tooth brush	When it wears off	62(22%)
		Every 3-4 Months	82(29%)
		Every 6 Months	22(8%)
		Don't know when the brush has to be changed	113(41%)
6.	Do you rinse your mouth after eating your food?	Never	28(9%)
		Sometimes	115(37%)
		Always	166(54%)
7.	Dental Floss	Have you used dental floss?	Yes-4(1%) No-47(15%)
		Never heard about dental floss	259(84%)
8.	Have you heard about interdental brush?	Yes	6(2%)
		No	304(98%)
9.	Previous dental Visit	Yes	136(44%)
		No	173(56%)
10.	How do you brush your teeth?	Horizontal	205(67%)
		Vertical	65(21%)
		Circular	35(12%)

Results showed that all the school children selected were using tooth brush and tooth paste to clean their teeth. 66% of the students were brushing once daily and only 34% of students were brushing twice a day. Our study also revealed that 73% children were brushing only in the morning before meal whereas only 27% students were brushing after meal in the night. Only 54% of students were rinsing always after meal whereas 9% never rinsed their mouth after meal. This shows that children were not aware that they should be brushing their teeth twice a day after meal and rinse their mouth after every meal. Our study also showed that most of the students were not aware of interdental cleaning tools like dental floss and interdental brush, 41% of students were unaware when the tooth brush had to be changed and only 44% students had previous dental visit whereas 54% of students never visited any a dentist before.. It was also seen that 67% students were using horizontal brushing strokes and only 21% were using vertical strokes and 12% were using circular strokes.

### **Discussion:**

Health is universal human need for all cultural groups and the mouth is regarded as mirror of the body and gateway to good health.<sup>6</sup> It is not possible to attain general health without achieving oral health. Martignon S et al stated that tooth brushing habit become established during the first years of childhood and lasts throughout lifetime.<sup>7</sup> Microbial plaque is the major aetiology in periodontal disease as well as dental caries.<sup>8</sup> The American Dental Association (ADA) recommends that individual must brush twice per day and use floss or other interdental cleaner once per day to effectively remove the microbial plaque.<sup>9</sup> But in our study ,it was seen that 73% of students were brushing only in the morning before meal, and only 1% of students knew about dental floss and 2% of students knew about interdental brush. ADA also recommends that tooth brushes should be replaced every 3 – 4 months .<sup>9</sup> However in our study it was seen that 41% of the students were unaware of frequency of change of brush and only 29% of students changed their tooth brush in 3-4 months. Previous studies have shown that any tooth brush regardless of the

technique used ,does not completely remove the interdental plaque and food debris.<sup>10,11</sup> Therefore interdental cleaning tools must be incorporated as every day habit by every individual to maintain the oral health. The horizontal brushing strokes are most detrimental to tooth causing surface enamel loss as well as gingival recession. Patricia O. Nassar et al conducted periodontal evaluation of different tooth brushing techniques and suggested that Bass technique can be effective on the reduction of periodontal clinical parameters of plaque index and gingival index.<sup>12</sup> In our study, 67% of students were using horizontal strokes to brush their teeth, and if this continues it will result in cervical abrasions, gingival recession and sensitivity to cold.

### **Conclusion:**

Oral health diseases are detrimental to the quality of life and can have impact on self-esteem, eating ability, nutrition and health of an individual. We have various materials that are used to maintain the oral health. However until we conduct various oral health programmes at schools and communities, people will not be aware of all these materials and how to make use of these materials. School health awareness is the first and most important step in preventing oral disease and such program should start from Preschool so that this habit is incorporated from childhood into an individual. Not only school children; parents, teachers, care takers must also be made aware so that this habit is continued and reinforced every day.

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