

Original article:

Oral Hygiene Awareness Among The Primary School Children in A Rural Area of Bangladesh

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Abstract:

Background: Now-a-days dental problem is one of the most common diseases in the world. Proper oral hygiene practicing in a regular basis are great ways to prevention of dental disease. **Methodology:** This cross sectional study was carried out with a view to assess the oral hygiene awareness among the primary school children of a rural area under Dhaka division of Bangladesh. Data about oral hygiene related knowledge and practices were collected by face to face interview of the children. Oral examination was done by disposable dental mirror and probe under sufficient light. Data were analyzed using SPSS version 16. **Results:** Among the 114 respondents 53.51% are male and rest are female. Age range of the respondents were 6 to 11 years. Oral hygiene related knowledge: Among the respondents 78.07% told that regular teeth cleaning is important, 60.52% respondents told that teeth should be cleaned once daily, 62.29% told that teeth should be cleaned by tooth brush and tooth paste, 70.17% told that teeth should be cleaned before breakfast. Oral hygiene related practice: Among 114 respondents 64.04% cleaned their teeth everyday, 51.75% used tooth paste and toothbrush to clean their teeth, 38.60% respondents cleaned their teeth in their convenient time. Among the tooth brush users, most of them changed their toothbrush when it was damaged or lost. All the respondents used match stick or coconut leaf stick if food was deposited in between their teeth. Oral hygiene status: Among the respondents 68.32% had caries in their mouth. About 53.42% caries found in the lower jaw. Caries were more prevalent in molar teeth. About 69.34% respondents had plaque or calculus, 46.54% experienced gingival bleeding. **Conclusion:** Oral hygiene awareness among the respondents were very low.

Keywords: oral hygiene, children, caries

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Introduction:

Oral Health is an essential part of general health. It has become clear that causative and risk factors in oral diseases are often the same as those implicated in the major general diseases.¹

Without a healthy mouth, it is impossible to eat, speech clearly or smile without difficulties. In the developing country like Bangladesh rural children may be more susceptible to dental diseases due to socio-economic and demographic factors like lack of awareness, inadequate access to expert dental care etc.

Children are the future of the nation. School going children spend considerable period of time in the school. It is one of the best platform to gather wide range of basic knowledge in different disciplines. The proper guidance help them to develop proper awareness about oral health behavior.

Many research shows that in many countries, the number of children clean their teeth appropriately

is very much disappointing. Many of them do not clean their teeth at all, some of them clean their teeth inadequately and many of them have no experience of using tooth brush and paste. Oral health education of the school children as effective method for prevention of various oral dental problems.^{2,3} The aim of this study was to investigate the oral hygiene related awareness among the rural primary school children.

Methodology:

This was across sectional type of descriptive study. The study was carried out in a rural primary school under Dhaka division of Bangladesh. The present study was comprised of 114 respondents. Data were collected from all the students attended on the school on that day of 2015. Face-to-face interview were taken from the children by using structured questionnaire. The oral hygiene status was measured from all the students by clinical examination using disposable mirror and probe

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under sufficient light. Ethical approval for the study was taken from concerned authority. A verbal informed consent was obtained from the respondents before clinical examination. All the data were tabulated and statistically analyzed using Statistical Package for Social Sciences (SPSS) version 16.

Results:

Socio demographic status of the respondents:

Most of the respondents came from lower socio economic condition.

Table 1: Distribution of the respondents according to their sex

Sex	Frequency	Percentage
Male	61	53.51
Female	53	46.49
Total	114	100.00

Table 1 shows that among the respondents 53.51% are male and 46.49% are female.

Table 2: Distribution of the respondents according to their age

Age (in years)	Frequency	Percentage
6	15	13.15
7	18	15.80
8	24	21.05
9	17	14.91
10	19	16.67
11	21	18.42
Total	114	100.00

Table 2 shows that the age range of the respondents were 6 to 11 years.

Oral hygiene related knowledge of the respondents:

Table -3: Distribution of the respondents by knowledge on importance of regular teeth cleaning

Regular teeth cleaning is important	Frequency	Percentage
Yes	89	78.07
No	25	21.93
Total	114	100.00

Table 3 shows that among the respondents 78.07% respondents told that teeth cleaning in regular basis is important whereas others said not.

Table- 4: Distribution of the respondents by knowledge on frequency of tooth cleaning

Frequency of teeth cleaning	Frequency	Percent
Once daily	69	60.52
Twice daily	10	08.78
Do not know	35	30.70
Total	114	100.00

Table 4 shows that 60.52% respondents told that teeth should be cleaned once daily whereas 08.78% told twice daily and 30.70% told that they did not know the answer.

Table 5: Distribution of the respondents by knowledge on materials used for tooth cleaning

Materials used for teeth cleaning	Frequency	Percentage
Tooth brush & tooth paste	71	62.29
Ash	14	12.28
Coal	29	25.43
Do not know	00	00.00
Total	114	100.00

Table 5 shows that among the respondents 62.29% told that teeth should be cleaned by tooth brush & tooth paste whereas 25.43% told coal and 12.28% told ash.

Table -6: Distribution of the respondents by knowledge on time of tooth cleaning

Time of teeth cleaning	Frequency	Percentage
Before breakfast	80	70.17
After breakfast	08	07.02
After breakfast & before going to bed	05	4.39
Do not know	21	18.42
Total	114	100.00

Table 6 shows that among the respondents about 70.17% told that teeth should be cleaned before breakfast, 7.02% told after breakfast, 4.39% told after breakfast and before going to bed and 18.42% did not know the answer.

Oral hygiene related practice among the respondents:

Table 7: Distribution of the respondents by cleaning of teeth everyday

Clean teeth everyday	Frequency	Percentage
Yes	73	64.04
No	41	35.96
Total	114	100.00

Table 7 shows that among the 114 respondents 64.04% cleaned their teeth everyday whereas others did not clean their teeth everyday.

Table 8: Distribution of the respondents by frequency of tooth cleaning

Frequency of teeth cleaning	Frequency	Percentage
Once daily	64	87.67
Twice daily	07	9.59
Thrice daily	02	2.74
Total	73	100.00

Table 8 shows that among 73 respondents 87.67%

cleaned their teeth once daily, 9.59% cleaned twice daily and 2.74% cleaned thrice daily.

Table 9: Distribution of the respondents by materials used for tooth cleaning

Materials used for teeth cleaning	Frequency	Percentage
Tooth brush & tooth paste	59	51.75
Ash	23	20.18
Coal	32	28.07
Total	114	100.00

Table 9 shows that among the respondents 51.75% used tooth brush & tooth paste for teeth cleaning whereas 20.18% used ash and 28.07% used coal. Among 59 respondents 89.23% respondents changed their toothbrush when it damaged or lost whereas others changed their tooth brush after every six months to one year.

Among the respondents all of them used match stick or coconut leaf stick if food was deposited in between their teeth.

Table -10: Distribution of the respondents by knowledge on time of tooth cleaning

Time of teeth cleaning	Frequency	Percentage
Before breakfast	62	54.39
After breakfast	03	2.63
After breakfast & before going to bed	05	4.38
No specific time	44	38.60
Total	114	100.00

Table 10 shows that among the respondents about 54.39% cleaned their teeth before breakfast, 2.63% after breakfast, 4.38% after breakfast and before going to bed and 38.60% told that they cleaned their teeth according to their convenient time.

Oral hygiene status: Among the respondents 68.32 % had caries in their mouth. About 46.58% caries found in the upper jaw whereas 53.42% caries present in the lower jaw. Caries were more prevalent in molar teeth. Among the respondents about 69.34% respondents had plaque or calculus, 46.54% experienced gingival bleeding.

Discussion:

The cross sectional study was carried out with a view to assess the oral hygiene awareness among the primary school children in a rural area under Dhaka division of Bangladesh. The present study was comprised of 114 respondents. Among the

respondents 53.51% are male and 46.49% are female. Age range of the respondents were 6 to 11 years.

Oral hygiene related knowledge: Among the respondents 78.07% respondents told that teeth cleaning in regular basis is important whereas others said not. About that 60.52% respondents told that teeth should be cleaned once daily whereas 08.78% told twice daily and 30.70% told that they did not know the answer.

Among the respondents 62.29% told that teeth should be cleaned by tooth brush & tooth paste whereas 25.43% told coal and 12.28% told ash.

About 70.17% told that teeth should be cleaned before breakfast, 7.02% told after breakfast, 4.39% told after breakfast and before going to bed and 18.42% did not know the answer.

Oral hygiene practice: Among the 114 respondents 64.04% cleaned their teeth everyday whereas others did not clean their teeth everyday which is near about similar to a study done by Humagain.⁴

Among the respondents 51.75% used tooth brush & tooth paste for teeth cleaning which is lower than a study done by Ahmed et al⁵ and others used ash, coal. This differences may be due to socio-economic condition or wrong conception or traditional belief of the respondents.

Among 59 respondents 89.23% respondents changed their toothbrush when it damaged or lost whereas others changed their tooth brush after every six months to one year. This may be due to lack of proper dental health education. Socio economic condition may also attribute the factor.

Among the respondents all of them used match stick or coconut leaf stick if food was deposited in between their teeth. Dental floss or other inter dental cleaning device is costly compare to match stick. Coconut leaf stick is easily available in the Bangladeshi rural area. That's why rural people use this kind of stick for inter dental cleaning.

Among the respondents about 54.39% cleaned their teeth before breakfast, 2.63% after breakfast, 4.38% after breakfast and before going to bed and 38.60% told that they cleaned their teeth according to their convenient time.

Oral hygiene status: Among the respondents 68.32 % had caries in their mouth. This is similar to a study done by Sarwar et al⁶ and more than twice than the study done by Edward et al⁷. About 46.58% caries found in the upper jaw whereas 53.42% caries present in the lower jaw. Caries were more prevalent in molar teeth. Which is similar to

a study done by Zhu et al⁸. Among the respondents about 69.34% respondents had plaque or calculus, 46.54% experienced gingival bleeding which is lower than a study done by Sarwaret al.⁶

Knowledge vs practice: Among the respondents 78.07% told that regular tooth cleaning is important but only 64.04% cleaned their teeth everyday. Among the respondents 62.29% told that teeth should be cleaned by tooth brush and tooth paste but 51.75% used tooth brush and paste to clean their teeth. These show that there is no association between their knowledge and practice. Similar findings were found in the study done by

Krawczyk.⁹

Conclusion:

Oral hygiene awareness among the rural primary school children was very little associated with poor oral hygiene. Dental caries is a common public health problem among the school children. It is still probably important to promote good oral hygiene practices among young children to reduce the risk of caries and other dental problem.

Recommendation:

Health educational program on oral hygiene and periodic free dental checkup should be arranged on school.

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