Original article

Practices of hygiene among primary school children in a selected semi urban area of Bangladesh

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Abstract

This descriptive type of cross sectional study was conducted to assess the practice of hygiene among primary school children in a selected semi urban area of Bangladesh. This study was conducted among 150 respondents who were selected purposively at Shafipur Model High School in Kaliyakoir thana of Shafipur upazilla, Gazipur in Bangladesh and a semi-structured questionnaire was used to collect data by face-to-face interview. In this study, majority of the respondents 89 (59.33%) were within the age group of 08-10 years. About respondents 88 (58.67%) were girls and 62 (41.33%) were boys. Among the respondents 54 (36%) were students of class III, 48 (32%) were students of class IV and 48 (32%) were students of class V. About 121 (80.66%) respondents gathered knowledge of hand hygiene from their parents. Regarding hand washing, 137 (91.33%) respondents washed their hands before meal. All the respondents washed their hands with soap after coming from toilet. Almost everyone 145 (96.67%) regularly cut their fingernails. Maximum respondents 119 (79.33%) used tap water and 31 (20.67%) used deep tube well water for drinking. Almost all of them 148 (98.66%) covered their water container. Maximum respondents 148 (98.67%) took bath regularly. Most of the respondents 148 (98.67%) used sanitary latrine. Maximum respondents 131 (87.33%) kept garbage in covered dustbin. Information from this study will serve as baseline data for future school-based hygiene intervention programs in semi-urban area of Bangladesh.

Key words: Practice, Hygiene, Primary School Children, Bangladesh.

Introduction

Personal hygiene can be controlled by sustaining high standards of personal care and humans have been aware of the importance of hygiene for thousands of years. The perception and practice of hygiene are frequently related with cultural values and religious perspectives. Cultural and religious views of society often define the perception of hygiene with the ideas of purity and pollution. In medicine, hygiene practice is employed as preventive measures to reduce the incidence and spreading of disease. [1] The foundations of lifelong responsibility for the maintenance of personal hygiene are laid down in childhood, which is important for a healthy childhood. Poor health among school children is resulted from the lack of awareness of the health benefits of personal hygiene. Diarrheal diseases, skin diseases, worm infestations and dental diseases are most commonly associated with poor personal hygiene. The origins of many of the illness of adulthood also have their roots in the health behaviors of childhood and adolescence. Children in their primary schooling age can learn specific health promoting behaviors, even if they do not fully understand the connections between illness and behavior.[2] Personal hygiene among children is considered as the best tool to improve community strategies and intervention practices to tackle the many communicable and infectious diseases that affect the children during their period of growth and development.[3]

Inadequate sanitary conditions and poor hygiene practices play major roles in the increased burden of communicable disease within these developing countries. Lack of resources namely soap and water as well as inadequate sanitation facilities may be two of the main reasons why children do not wash their hands. In addition to having proper resources and facilities, hygiene practices are heavily influenced by student's knowledge and attitudes towards hygiene.[4] A large number of people in Bangladesh lack access to portable drinking water. Among them, people of semi urban area face the greatest challenges. Their water quality is affected by unsafe water supply, unhygienic sanitation

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facilities and poor solid waste management, unhygienic practices particularly with regard to hand washing, poor socio-economic background and over-crowded living condition.[5] Due to lack of education, knowledge and basic awareness, people often have a poor understanding of the relationship between health, water, sanitation and hygiene. In some instances, people may still practice unhygienic habits even though this understanding does exit.[6] Overcrowding creates huge increase in communicable diseases like diarrhoea. About 24% of urban households are estimated to have no sanitary latrines. According to World health organization (WHO) the main determinants of health include the social and economic environment, the physical environment and the person's individual characteristics and behaviors.[7] The primary causes of infections are contaminated water and poor sanitation, as well as poor hygienic practices. Diarrheal diseases, skin diseases, worm infestations, dental diseases and malnutrition are most commonly associated with poor personal hygienic. Lack of personal hygienic with poor sanitation favors person to person transmission of infection. Also infection and malnutrition impaired physical development of retard children. Repeated attacks of infections are often cause the existing poor health of children compromising children's attendance and performance at school.[2]

School children are particularly vulnerable to neglect of basic personal hygiene. The increased burden of communicable diseases among school children due to inadequate sanitary conditions and poor personal hygiene practices remains a concern on the public health agenda in developing countries.[8] Majority of the childhood illnesses are preventable by promotion of hygienic practices among school children through proper health education by their parents and teachers.[2] Recurrent infections may have negative impact on children's psychological and psychosocial well-being as well as quality of life.[9] This study will find out the practice of personal hygienic among the primary school children which is important to decrease the burden of communicable diseases in the developing countries.

Materials and methods

This descriptive type of cross sectional study was conducted to assess the practice of hygiene among 150 primary school children in a selected semi urban area of Bangladesh who were selected from Shafipur Model school of Shafipur, Gazipur, Dhaka from 12th February to 16th February, 2018. The sample was selected purposively. A pre-tested semi structured questionnaire was used for collection of data. Data was collected by face to face interview by using the questionnaire. Verbal consent of the respondents was taken prior to the study. After collection, data were checked to detect errors, omission and edited for consistency. The frequency distribution tables prepared first and then a master table was made. Data were compiled and analyzed manually by using calculator.

Ethical clearance

Ethical clearance was obtained from the school authority before the study and the students gave their informed consent before taking part in this study. Participation was purely on voluntary basis.

Results

This descriptive type of cross sectional study was conducted to assess the practice of hygiene among 150 primary school children in a selected semi urban area of Bangladesh who were selected from Shafipur Model school of Shafipur, Gazipur, Dhaka. Most of the respondents (89; 59.33%) were within the age group 08-10 years. Mean age of the respondents were 10.27 years. Most of the respondents (88: 58.67%) were girls & the rest (62: 41.33%) were boys. Most of the respondents (54; 36%) were in class III. Regarding religion, maximum respondents (129; 86%) were Muslims. Regarding occupation of the respondents, most of their father (79; 52.67%) was businessman followed by garments worker (50; 33.33%). Regarding occupation of the respondent's mother, most of their mothers were housewives (75; 50%). Regarding number of siblings, most of them (134; 89.33%) have 0-4 siblings. About number of family members, most of the respondents (109; 72.67%) have 1–5 persons.

Regarding the knowledge of hygiene, most of them (121; 80.66%) gathered knowledge from their parents. Regarding sources of drinking water, most of the respondents (119; 79.33%) used tap water and (31; 20.67%) used deep tube well water for drinking. Almost all of them (148; 98.66 %) covered their water container. Regarding their practice of washing hands before meal, most of them (137; 91.33%) washed their hands before meal. All the respondents (150,100%) washed their hands with soap after coming from toilet. Most of the respondents (145; 96.67%) cut their finger nails regularly. Almost all the respondents (146; 97.33%) used to brush their teeth every day. Almost all the respondents (149; 99.33%) used to wear clean cloths. Most of the respondents (131; 87.33%) took freshly cooked food. Almost all the respondents (146; 97.33%) used to cover their food. Most of the respondents (148; 98.67%) took bath regularly. Maximum of the respondents (145; 96.67%) kept their house clean. Most of them (131; 87.33%) kept garbage in covered dustbin. Almost all of the respondents (148; 98.67%) used sanitary latrine.

Table 1: Distribution of the respondents by socio-demographic characteristics (n=150)

Variables	Frequency	%
Age group (years)		
08-10	89	59.33
11-13	59	39.34
14-16	02	01.33
Mean age of the respondents were 10.27 years		
Sex of the respondents		
Girls	88	58.67
Boys	62	41.33
Religion		
Muslim	129	86.00
Hindu	`	14.00
Respondents by their class		
III	**54**	**36.00**
IV	**48**	**32.00**
V	**48**	**32.00**
Father's Occupation		
Businessman	79	52.67
Garments worker	50	33.33
Service holder	18	12.00
Others	03	02.00
Mother's Occupation		
Housewife	75	50.00
Garments worker	44	29.33
Service holder	24	16.00
Others	07	04.67
Number of sibling		
0 – 4	134	89.33
5 – 9	16	10.67
Number of family member		
1 – 5	109	72.67
6 – 10	41	27.33
Type of house		
Building	99	66.00
Tin shed	50	33.33
Kacha (mud house)	01	67.00

Table II: Distribution of the respondents by their practices on hygiene (n=150)

From whom gather knowledge		
Parents	121	80.66
Teachers	18	12.00
Television	04	02.67
Others (Friends, Siblings etc.)	07	04.67
Sources of drinking water		
Tap water	119	79.33
Deep tubewell	31	20.67
Covering of water container		
Yes	148	98.66
No	02	01.44
Washing hands before meal		
Always	137	91.33
Sometime	13	08.67
Washing hands with soap after Coming from toilet		
Yes	150	100.00
No	00	00.00
Cutting of finger nails		
Yes	145	96.67
No	05	03.33
Brushing teeth everyday		
Yes	146	97.33
No	04	02.67
Wearing clean cloths		
Yes	149	99.33
No	01	0.67
Usual food intake pattern		
Freshly cooked food	131	87.33
Food which is stored in refrigerator	16	10.67
Previously cooked food	03	02.00
Food from outside	00	00.00
Practice of covering food		
Yes	146	97.33
No	04	02.67
Taking bath regularly		
Yes	148	98.67
No	2	01.33
Keeping house clean		
Yes	145	96.67
No	5	03.33
Keeping garbage in Covered dustbin		
Yes	131	87.33
No	19	12.67
Using sanitary latrine		
Yes	148	98.67
No	2	01.33

Discussion

This descriptive type of cross sectional study was conducted among 150 school children in the Safipur Model School in Shafipur upazilla, Gazipur in Bangladesh from 12th February to 16th February 2018 to determine the practices of hygiene among Primary School Children in a Selected Semi Urban Area of Bangladesh. The majority of the respondents 89 (59.33%) were in 08-10 years age groups. In the South-West region of Bangladesh, 64.23% of children are 08-10 years of age; [10] which is similar to our study. Most of the respondents in our study were Muslim 129 (86%) followed by Hindu 21 (14%). As per Bangladesh bureau of statistics majority of the people of Bangladesh are Muslim (89.35%).[11]In this study, most of the father of respondents 79 (52.67%) were businessmen followed by 50 (33.33%) were garment workers.

Most of the respondent's mother 75 (50%) were housewives and other 75 (50%) were involved with various types of jobs. As per Bangladesh bureau of statistics, majority of the male population are involved in service and female are housewives 21 which is similar to our study. Almost all the respondents 134 (89.33%) have 0-4 siblings and remaining 16 (10.67%) have 5-9 siblings. Average number of siblings in semi urban area in Bangladesh was 4.35. [11] Most of the respondents 121 (80.66%) known about hand hygiene from their parents, 18 (12%) known from their teachers, 04 (2.67%) known from television. This result shows that majority of the respondents know about hand hygiene from their parents.

Regarding the practice of hygienic hand washing, majority of respondents washed hands before meals. The percentages of respondents who washed hand before eating were 137 (91.33%). Studies from the Philippines and Colombia indicated that 75.9% and 46.9% of students, respectively, reported washing hands before meals. The considerably higher frequency of hand washing before meals among Ethiopian children may be due to the Ethiopian cultural tradition and ceremonial practice of washing hands before meals or the desire for clean, fresh hands before eating. [11, 12, 13] There were 180 (100%) of students who washed their hands with soap after coming from toilet. This is also high frequency regarding to the Philippines and Turkey studies where an average of 37.7% and 42.4% of children respectively washed their hands with soap.[12, 14] Most of the respondents 145 (96.67%) were cutting their finger nails and only 05 (3.33%) did not cut their finger nails which is high frequency regarding to the Philippines studies where an average of 60.65% of students cut their finger nails.[12] Majority of the respondents brush their tooth every day and wear clean cloth. The percentages of respondents who brush their tooth everyday were 146 (97.33%) and wear clean clothes were 149 (99.33%). There were 146 (97.33%) of the respondents covered their food and only 04 (2.67%) were did not cover their food. This is high frequency to the Ethiopian tradition where a 75% of students covered their food. [21] Most of the respondents use sanitary latrine.148 (98.67%) were used sanitary latrine and only 02 (1.33%) did not use sanitary latrine which also high frequency to the Ethiopian study where 82.67% of students used sanitary latrine.

Conclusion

School children have positive attitude on practices of personal and home hygiene but it needs to be improved further. Health promotion programs and health education lectures should be implemented for children and their families. School teachers, school nurses and staffs also have an important role in teaching the children about practice of good personal hygiene and in supervising their cleanliness. Information from this study will serve as baseline data for future school-based hygiene intervention programs in semi-urban area of Bangladesh.

Conflict of interest

The authors declare that they have no conflict of interest.

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