Original Article

Personal Hygiene Practices among Selected Rural School Children in Bangladesh

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Abstract

Background: *Proper hygiene practices play vital roles in prevention of communicable diseases and maintenance of health for children in developing countries.* ***Objective:*** *To assess the status of personal hygiene practices among the rural school children.* ***Materials and method:*** *This cross-sectional descriptive study was conducted from January to June 2014 among the children of class VIII, IX and X of Defalbari and Nagarbathan high school of Jhenaidah district, Bangladesh. A total of 240 children were selected through purposive sampling and data were collected through face to face interview with a pretested semi-structured questionnaire.* ***Results:*** *Total 240 students' mean age was 15.36±1.69 years and 56.3% was boy. About 52.5% of the students' monthly family income was below 10,000 taka, 42.5% were living in kacha house. About 77.1% students practiced hand washing before meal and 73.3% after using toilet. About 47.5% students had sanitary latrine in their home and 56.2% had practices of wearing shoes in toilet. About 72.9% students had daily bathing practices and 39.6% students trimmed their nail weekly. Students' mothers' education status had significant association with hand washing practices both before meal and after using toilet.* ***Conclusion:*** *Proper practices of personal hygiene keep young children away from many diseases and help in maintaining growth and development. Mothers' education status was found to have significant association with students' personal hygiene practices. So, effort should be made to aware every school going children and their parents about the benefits of regular practice of personal hygiene for a bright and healthy life.*

Keywords: *Personal hygiene; Practices; Rural school children.*

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Introduction

Hygiene is defined as "the science of health and embraces all factors which contribute to healthful living".[1] Personal hygiene means health care measures responsible for improving the health of the individual and includes factors which influence the health and wellbeing. Personal hygiene comprises a broad range of day to day activities, such as care of the body by regular bathing and washing, care of the clothing by regular washing, care of teeth by regular brushing, care of the nails and hair by regular trimming, washing hands before meals and after using toilet etc.[2] Poor practices of personal hygiene plays major roles in the high incidence of communicable diseases and therefore has negative consequences for a child's long term development.[1] Studies have revealed a

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strong and consistent causal link between poor hand hygiene and gastrointestinal infection.[2] Hand washing practices encouraged through health education has been reported to be associated with low prevalence of communicable diseases in school children.[3] Personal hygienic practices therefore plays an important role in preventing spread of respiratory infections, helminthiasis, skin infections, eye infections, food borne diseases, spread of new pathogens as in epidemics.[3] Infectious disease causes 62% and 31% of all deaths in Africa and Southeast Asia respectively.[4]

The health of school children is a common concern of the school, parents and the community. A child has to be healthy to learn and school is an important place, next to home, where a child learns to be healthy.[5] Relationship between health, education and development is very important, as a healthy child is the major input for human resources development.[6] Health and education are interrelated means of development. Schools are particularly important because these institutions represent gathering places for a population of age 5-17 years.[7] School children are susceptible to many communicable diseases and vulnerable to physical and mental hazards. Moreover a considerable proportion of school children, particularly in the underdeveloped and developing countries, suffer from malnutrition and deficiency diseases and as such they naturally deserve special attention for their physical and intellectual development.[5,7]

It is generally recognized that childhood is the best time to learn personal hygiene practices. Children are future parents and what they learn is likely to be applied in the rest of their lives. They have important roles in the household, taking care of younger siblings, and depending on the culture, they may also question existing practices in the household. They are eager to learn and help, and if they consider environmental care and their role in this as important, they will take care of their own health and the health of others.[6] Study findings on "hand washing with soap behaviour in Kenya under water and sanitation program" by UNICEF found that washing hands with soap at the right times can reduce instances of diarrhoea by 45-50 percent.[9] Knowledge and practices on basic personal hygiene among school children have shown that although a sizeable number of the children studied had adequate knowledge related to basic personal hygiene, their practices related to same was poor.[10] Maximum research works have been conducted on personal hygiene of various professionals. Very few studies have been done to assess the personal hygiene practices among school children. This study was conducted to get the information about personal hygiene practices status of selected rural school children in Bangladesh. This might give the guidelines for policymakers for planning and preparation of curriculum to conduct intervention program for students.

Materials and method

This cross sectional descriptive study was conducted among 240 students of class VIII, IX and X of Defalbari and Nagarbathan high school of Jhenaidah district, Bangladesh from January to June 2014. All the students agreed to participate were included purposively in the study and data were collected through face to face interview with a pretested semi-structured questionnaire. Informed verbal consent from the participants and written permission were taken from the school authority. Collected data were collated and analyzed by using the SPSS version 19.0 and presented in frequency and percentage. Chai square (X^2) test was done to find the association among different variables and $p<0.05$ considered as significant.

Results

In this study total 240 students' mean age was 15.36±1.69 years and ranged from 13 to 17 years. Among the students 56.3% was boy. About 52.5% of the students parents' monthly family income was below 10,000 taka, 42.5% were living in kacha house and students' mean family members 4.7±1.56 with range of 2-8 members. (Table I)

Table I: Socio-demographic characteristics of the students (N=240)

Characteristics	Frequency	Percentage
Age (years)		
13	13	5.4
14	61	25.4
15	75	31.2
16	69	28.8
17	22	9.2
Gender		
Boys	135	56.3
Girls	105	43.7
Residence type		
Kacha	102	42.5
Semi Pucca	103	42.9
Pucca	35	14.6
Sanitary latrine at home		
Yes	114	47.5
No	126	52.5
Family members		
< 4	77	32.1
4 -7	129	53.7
> 7	34	14.1
Mother's education status		
Primary	117	48.7
Secondary	89	37.1
HSC & above	34	14.2
Monthly family income (Taka)		
< 10,000	126	52.5
10,000-20,000	83	34.6
> 20,000	31	12.9

About 77.1% of the students were found to practice hand washing before taking meal, whereas 73.3% practiced hand washing after using toilet and 56.2% respondents wear shoes during use of toilet, 72.9% practiced daily bathing, 63.7% brushed teeth at early morning and only 39.6% had weekly nail trimming practices. (Table II)

Table II: Personal hygiene practices among the students (N=240)

Characteristics	Frequency	Percentage
Hand washing before meal		
Yes	185	77.1
No	55	22.9
Hand washing after toilet		
Yes	176	73.3
No	64	26.7
Wearing shoes in toilet		
Yes	135	56.2
No	105	43.8
Daily bath		
Yes	175	72.9
No	65	27.1
Nail trimming		
Weekly	95	39.6
Two weekly	112	46.7
Monthly	33	13.7
Brushing teeth		
Early morning	153	63.7
Morning & night	23	9.6
Not regular	64	26.7

Students'mothers' education had significant ($p < 0.01$) association with hand washing practices after using toilet but no other socio-demographic characteristics had significant association. (Table III)

Table III: Association between socio-demographic characteristics and hand washing practices after using toilet (N =240)

Socio-demographic Characteristics	Hand Washing Practice after Toilet		Total	Statistics
	Yes	No		
Gender				
Boy	94	41	135	$x^2 = 2.16$
Girl				$p > 0.05$
Mothers education				
Primary	77	40	117	$x^2 = 7.16$
Secondary	70	19	89	**$p < 0.05$**
HSC & above				
Residence type				
Kacha	68	34	102	$x^2 = 5.36$
Semi-pucca	78	25	103	$p > 0.05$
Pucca				
Monthly family income (Taka)				
< 10,000	88	38	126	$x^2 = 1.91$
10,000 - 20000	63	20	83	$p > 0.05$
> 20,000	25	6	31	

Students' mothers' education had significant ($p<0.01$) association with hand washing practices before meal but no other socio-demographic characteristics had significant association. (Table IV)

Table IV: Association between socio-demographic characteristics and hand washing practices before taking meal (N = 240)

Socio-demographic characteristics	Hand washing practices before meal			Statistics
	Yes	No	Total	
Gender				
Boy	107	28	135	$x^2 = 0.83$
Girl	78	27	105	$p > 0.05$
Mothers education				
Primary	79	38	117	$x^2 = 11.38$
Secondary	77	12	89	**$p < 0.01$**
HSC & above	29	5	34	
Residence type				
Kacha	72	30	102	$x^2 = 4.33$
Semi-pucca	85	18	103	$p > 0.05$
Pucca	28	7	35	
Monthly family income (Taka)				
< 10,000	93	33	126	$x^2 = 1.61$
10,000 - 20000	67	16	83	$p > 0.05$
> 20,000	25	6	31	

Discussion

In this study mean age of the students was 15.36±1.69 years and 56.3% students were male. These findings are consistent with the findings of the study by Rahman A.[8] It was evident from the study that 42.5% respondents were living in kacha house, which is dissimilar to the study findings conducted by Chowdhury FA[10] where it was found that 24.2% respondents were living in kacha house. This difference is due to variation in study population. In this study 77.1% of the

respondents were found to practice hand washing before taking meal, whereas 73.3% had the habit of washing hands after using toilet and the findings conform to the "study on practice regarding personal hygiene among school going and non school going children in a selected rural area" by Rahman A.[8] About 56.2% respondents were found to wear shoes during use of toilet, 72.9% practiced daily bath, 63.7% brushed teeth only at early morning and only 39.6% had weekly nail trimming practices. These findings were consistent with other similar studies[5,10] but not consistent with the study findings conducted by Nahar and Alam[11] in 1999 who found only 11.1% children had habit of washing their hands after defecation. This might be due to increased awareness among the students as well as their parents. Students' mothers' education status was found significantly associated with hand washing practices before taking meal and after using toilet but no other socio-demographic characteristics had any significant association and these findings are consistent with similar study.[8]

Conclusion

Proper hygiene practices play vital roles in prevention of communicable diseases and maintenance of health of children. Mothers' education status has significant association with personal hygiene practices of students. So, effort should be made to aware every school going children and their parents about the benefits of regular practice of personal hygiene for a bright and healthy life.

References

1. Park K. Textbook of Preventive and Social Medicine. 20th ed. Jabalpur: M/S Banarsidas Bhanot; 2009.
2. Rashid KM, Rahman M, Hyder S. Text book of Community Medicine and Public Health. 4th ed. Dhaka: RHM Publishers; 2004.
3. Pal BY. A Handbook of Hygiene and Public Health. 13th ed. p. 563.
4. Oyibo PG. An Article on Basic Personal Hygiene: Knowledge and Practices among School Children Aged 6-14 Years in Abraka, Delta State, Nigeria, Wilolud Journals. Continental J Tropical Medicine. 2012;6(1):5-11.
5. Dhar S. Personal Hygiene Practice and Distribution of Intestinal Parasite among the Restaurant Workers of Mohakhali Area, Dhaka [dissertation]. Dhaka: NIPSOM; 2000.
6. UNICEF. Study Findings on Hand Washing with Soap Behaviour in Kenya under Water and Sanitation Program. 2008 [cited 2014 Aug 12]. Available from: https://www.unicef.org/wash/files/UNICEF_WASH_2008_Annual_Report_Final_27_05_2009.pdf.
7. Vivas AP, Gelaye B, Aboset N, Kumie A, Berhane Y, Williams MA. Knowledge, Attitudes and Practices (KAP) of Hygiene among School Children in Angolela, Ethiopia. J Prev Med Hyg. 2010;51(2):73-79.
8. Rahman A. A Study on Practice Regarding Personal Hygiene among School Going and Non School Going Children in a Selected Rural Area [dissertation]. Dhaka: NIPSOM; 2002.
9. UNICEF/IRC. A Manual on School Sanitation and Hygiene. 2007 [cited 2014 Aug 12]. Available from: https://www.unicef.org/wash/files/Sch_e.pdf
10. Chowdhury FA. Study on Personal Hygiene Practice among the Food Handlers of Dhaka University Hostels [dissertation]. Dhaka: NIPSOM; 2008.
11. Nahar A, Alam ATM. Distribution of Intestinal Parasite Infestation in Children under 10 Years in an Urban Clinic of Dhaka City and Its Impact on Nutritional Status of Children. Mymensingh Med J. 1999;8(2):83-87.