Original Article

Knowledge and Practice of Personal Hygiene among Rural Adults in a Selected Area of Bangladesh

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Abstract

This was a descriptive cross-sectional study which was conducted to assess the level of knowledge and practice regarding personal hygiene among rural adults of Bangladesh. The study was conducted at the selected villages in Brahmanbaria in 2017. A total of 300 rural adults of both sexes were selected purposively and interviewed with the help of interview schedules. The findings of the study reflected that among all the respondents, female (53.67%) were more than male (46.33%). Among them, 17.67% respondents were quite illiterate. Occupation of the respondents was mainly agriculture (15.33%) and housewife (48.67%). Among the respondents, 14.33% used kancha latrines and 5.00% of them still used open field for defecation. Maximum respondents (93.33%) drunk tube-well water. Majority (86.44%) of the respondents took their bath with soap and water daily. Most (98.33%) of the respondents had their teeth brushed once daily but only 4.07% of them did so three times daily. Among the respondents, 31.00% did not use tooth-paste and 20.33% of them did not cut their nails weekly. Only 5.33% respondents washed their hair with soap-shampoo-water. Most of them (66%) washed their hands with only water before meal & 11.67% did so with only water after defecation. More than one-third (34.33%) of the respondents did not have any knowledge about the transmission of diseases through dirty nails and even after defecation (33.67%) if not hands washed properly. A considerable number of respondents (62.33%) did not have knowledge about transmission of diseases from using latrine barefooted. The habit of tobacco smoking, betel leaf & nut and alcohol & ganja were 18.00%, 14.67% and 0.66% respectively. There was lack of awareness in maintaining many important particular aspects of personal hygiene among rural adults.

Keywords: *Personal hygiene, Rural adults, Awareness.*

Introduction

Personal hygiene is that which deals with measures, which are the personal responsibilities of the individual for the promotion of good health. It implies the observance of healthy practices by an individual in his daily life.[1] To achieve health or to maintain it may not be easy in this world when lives have become too artificial and the environment around us is so very polluted and hazardous. For overall healthful condition community is responsible.

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In fact responsibility for health is quite divided. State has taken up big share of it; some has been taken over by international agencies, but still many things are left to the individual and this part is known as personal hygiene. With all the desires and sincere attempts there may be failures, there are two blocks on our way which we cannot remove. These are the heredity and the constitution which may have a link with the first one. With these two exceptions many things about health depends upon individual's desire and endeavour, because environment or the existing health service is the common factor for all in a community. There are many personal factors conducive to good health and there are many good quotables e.g. "early to bed and early to rise makes a man healthy, wealthy and wise". There are many things to do and similarly there are many things 'not to do' or one should avoid these things. When one does a thing over a long time that becomes a part of his life - a habit. Habits may be good or conducive to health or they may be definitely injurious. It is

obvious that one can look after his own health when he has grown some sense of responsibility, but personal hygiene is possibly more important for an infant and young child, but at this stage its mother and others of the family are responsible and this time is more important for habit formation and easy learning.[2] A recent trend in health care is self care. It is defined as "those health- generating activities that are undertaken by the persons themselves". It refers to those activities individuals undertake in promoting their own health, preventing their own disease, limiting their own illness, and restoring their own health. These activities are undertaken without professional assistance, although individuals are informed by technical knowledge and skills. The generic attribute of self care is its non-professional, non-bureaucratic, non-industrial character; its natural place in social life.[3] Personal hygiene involves those practices performed by an individual to care for one's bodily health and well being, through cleanliness. Motivations for personal hygiene practice include reduction of personal illness, healing from personal illness, optimal health and sense of well being, social acceptance and prevention of spread of illness to others. What is considered proper personal hygiene can be cultural-specific and may change over time. Other practices that are generally considered proper hygiene include bathing regularly, washing hands regularly and especially before handling food, washing scalp hair, keeping hair short or removing hair, wearing clean clothing, brushing teeth, cutting finger nails, besides other practices. Some practices are gender-specific, such as by a woman during her menstrual cycle. Good personal hygiene now forms part of primary health prevention strategy, this has been found to be effective by reducing morbidity and mortality. Personal hygiene, which is also referred to as personal care, includes the following: bathing, hair, nail, foot, genital and dental cares, and washing of clothing among others.[4] A large number of diseases occur due to lack of personal hygiene and most of these diseases are communicable. Poor hygiene practices and inadequate sanitary conditions play major roles in the increased burden of communicable diseases within developing countries. A large fraction of the world's illness and death is attributable to communicable diseases. Sixty-two percent and 31% of all deaths in Africa and Southeast Asia, respectively, are caused by infectious disease.[5] It is true that the rural people are very much vulnerable to communicable diseases. Diseased people are liabilities to the community. Treatment of these diseases is expensive and always not within the reach of them. But prevention of these diseases is possible if their life style and hygienic practices can be maintained to an expected level. Various practices like maintaining personal cleanliness- washing hand prior to eating and after using toilet, keeping nails cut, brushing teeth in time, drinking safe water, using hand flush water seal type of latrine etc. are contingent to control many of these diseases. Hand washing with soap alone averts 0.5 - 1.4 million deaths per year.[6] Diarrhoeal diseases, skin diseases, worm infestations and dental diseases are most commonly associated with poor personal hygiene. The primary causes of infections are contaminated water and poor sanitation, as well as poor hygienic practices. Lack of personal hygiene coupled with poor sanitation favor person-to-person transmission of infection.[7] This study on personal hygiene among rural population will help making relevant policies to reduce the problems for the improvement of health of the rural people and this is the justification of this study.

Methods

This was a descriptive cross-sectional study. This study was carried out to assess the level of knowledge and practice of personal hygiene among rural adults of Bangladesh. This study was conducted at the selected villages in Brahmanbaria in 2017. A total of 300 rural adults of both sexes of a selected area were selected purposively for the study. First of all consent was taken from the respondents before information collection and they were clearly informed of the objectives of the study. They were also assured that data would be kept confidential and used only for academic and medical purposes. Then face to face interview was conducted by asking questions with the help of Interview schedules. After compilation, the obtained data were checked, verified, edited and a table was prepared. The data were then analyzed from the table for having results.

Results

A total of 300 rural adults of both sexes were selected purposively for the study to assess the level of knowledge and practice of personal hygiene. The findings of the study from data analysis are documented below:

Table I Socio-demographic information (n= 300)

Variable	n (%)	Variable	n (%)
Age group in year		**Education**	
18 - 38	190 (63.33)	Illiterate	53 (17.67)
38 - 58	82 (27.34)	Below graduation	232 (77.33)
58 - 78	25 (08.33)	Graduation & above	15 (05.00)
78 - 88	03 (01.00)	**Monthly family income (Taka)**	
Mean ± SD	40.83 ± 9.09	<5000	24 (08.00)
Sex		5000-10,000	63 (21.00)
Male	139 (46.33)	10000-15000	92 (30.67)
Female	161 (53.67)	15000-20000	49 (16.33)
Marital status		20000 & above	72 (24.00)
Married	258 (86.00)	Mean ± SD	15500 ± 7047
Unmarried	42 (14.00)	**Family member**	
Occupation		2 – 5	107 (35.67)
House wife	146 (48.67)	5 - 8	149 (49.67)
Service	16 (05.33)	8 - 11	37 (12.33)
Day labourer	23 (07.67)	11-14	07 (02.33)
Maid servant	04 (01.33)	Mean ± SD	5.94 ± 2.21
Business	26 (08.67)	**Source of water**	
Agriculture	46 (15.33)	Tube-well	280 (93.33)
Rickshaw-puller	02 (00.67)	Tap-water	20 (06.67)
Student	24 (08.00)	**Type of latrine**	
Driver	07 (02.33)	Kancha latrine	43 (14.33)
Carpenter	04 (01.33)	Open field defecation	15 (05.00)
Masonry	02 (00.67)	Sanitary latrine	242 (80.67)

Out of 300 respondents, the highest and lowest age was 88 and 18 years respectively. The mean age of the respondents was (40.83 ± 9.09) years. Female 161 (53.67%) were more than male 139 (46.33%) and of them 258 (86.00%) married and 42 (14.00%) unmarried. Occupation of 46 (15.33%) respondents was agriculture and 146 (48.67%) respondents was housewife mainly. As to educational status, the 53 (17.67%) respondents were quite illiterate and the majority 232 (67.33%) of them were below graduation. Monthly family income of 204 (68.00%) respondents was within the range of 5000-20000 taka but the income of 24 (08.00%) of them was <5000 taka. The mean monthly family income was (15500 ± 7047). The majority 149 (49.67%) of the respondents had 5-8 family members. The mean family member was (5.94 ± 2.21). Most 280 (93.33%) of the respondents used tube-wells as their source of drinking water. The majority 242 (80.67%) of the respondents used sanitary latrine, 43 (14.33%) used kancha latrine and 15 (05.00%) of them still used open field for defecation (Table I).

Table II Practice of personal hygiene (n= 300)

Variable	n (%)	Variable	n (%)
Habit of taking bath		**Habit of washing hands**	
Daily	295 (98.33)	Before & after taking meal,	295 (98.33)
At interval	05 (01.67)	After defecation	
Material used for taking bath		Before preparing & cooking food,	05 (01.67)
With only water daily	18 (06.00)	Before distributing food, After	
With soap & water daily	255 (85.00)	taking meal & after defecation	
With soap & water irregularly	24 (08.00)	**Material used for washing**	
With soap & water on the occasion	03 (01.00)	**hands before meal**	
Habit of brushing teeth		Only water	198 (66.00)
Daily	295 (98.33)	Soap & water	102 (34.00)
At interval	05 (01.67)	**Material used for washing**	
Frequency of brushing teeth daily		**hands after defecation**	
One time	153 (51.00)	Only water	35 (11.67)
Two times	130 (43.33)	Soap & water	250 (83.33)
Three times	17 (05.67)	Mud & water	09 (03.00)
Method of cleaning teeth		Ash & water	06 (02.00)
Brush/Finger/Meswak-Tooth paste	207 (69.00)	**Defecation done barefooted**	
Brush/Finger/Meswak-Majan/Charcoal	86 (28.67)	Yes	46 (15.33)
With only Meswak	07 (02.33)	No	254 (84.67)
Frequency of cutting nails		**Habit of sleep**	
Weekly	239 (79.67)	9/10/11 PM – 4/5/6/7 AM	277 (92.33)
Fortnightly	24 (08.00)	No specific time and duration	23 (07.67)
At leisure time	37 (12.33)	**Physical exercise performed**	
Method of washing hair		Jogging	13 (04.33)
With soap & water	128 (42.67)	Playing	07 (02.33)
With shampoo & water	149 (49.67)	Physical labour	101 (33.67)
With mud & water	07 (02.33)	Simple waking	179 (59.67)
With soap-shampoo-water	16 (05.33)	**Habit of addiction**	
Frequency of washing hair		Tobacco smoking	54 (18.00)
One time daily	64 (21.33)	Betel leaf & nut	44 (14.67)
Washing irregularly	231 (77.00)	Alcohol & Ganja	02 (00.66)
On the occasion	05 (01.67)	Nothing	200 (66.67)

Out of 300 respondents, 295 (98.33%) took bath daily of which majority 255 (86.44%) of them took bath 'with soap & water daily', 03 (01.00%) 'with soap & water on the occasion', 18 (06.10%) did so only with water daily and the rest 24 (08.00%) did so 'with soap & water' irregularly. Majority 295 (98.33%) had their teeth brushed daily but majority 153 (51.86%) of them had their teeth brushed one time daily. Maximum 207 (69.00%) cleaned their teeth with 'Tooth paste' and 86 (28.67%) used 'Majan/Charcoal'. Majority 239 (79.67%) cut their nails weekly and the rest 61 (20.33%) fortnightly or at any leisure time. Among the respondents, 128 (42.67%) washed their hair with 'soap & water', 149 (49.67) did so with

shampoo & water' and only 16 (05.33%) washed their hair with 'soap-shampoo-water'. Majority 231 (77.00%) washed their hair irregularly and 05 (01.67%) on the occasion and only 64 (21.33%) washed their hair one time daily. Regarding washing hands, 295 (98.33%) of the respondents washed their hands 'before & after taking meal & after defecation'. Before taking meal, majority 198 (66.00%) washed their hands with 'only water'. After defecation, 35 (11.67%) respondents still washed their hands with 'only water'; 46 (15.33%) went for defecation barefooted. Among the respondents, 23 (07.67) did not maintain regularity for sleeping; 121 (40.33%) performed their physical exercise mainly by physical labour, jogging and playing but most 179 (59.67%) of them did so by only simple walking. About 54 (18.00%), 44 (14.67%) and 02 (00.66%) of the respondents had the habit of 'tobacco smoking', 'betel leaf & nut' and 'alcohol & ganja' respectively (Table II).

Table III Knowledge about health problems from lack of personal hygiene (n= 300)

Variable	n (%)	Variable	n (%)
Effect of using majan/charcoal		**Problems if not taking care**	
Problem in teeth	198 (66.00)	**of hair**	
Don't know	102 (34.00)	Dandruffs	115 (38.33)
Transmission of diseases		Dandruffs, Lice	99 (33.00)
through dirty nails		Don't know	86 (28.67)
Diarrhoea, Dysentery	159 (53.00)	**Diseases from using latrine**	
Worm infestation	30 (10.00)	**barefooted**	
Typhoid	03 (01.00)	Worm infestation	113 (37.67)
All of above	05 (01.67)	Don't know	187 (62.33)
Don't know	103 (34.33)	**Avoidance for the**	
Diseases transmitted if not washing		**prevention of obesity**	
hands after defecation		Eating excessive rice	35 (11.67)
Diarrhoea, Dysentery	150 (50.00)	Eating vegetables	15 (05.00)
Worm infestation	37 (12.33)	Physical work and exercise	45 (15.00)
Typhoid	02 (00.67)	Eating excessive rice, meat,	138 (46.00)
All of above	10 (03.33)	fast food and taking fat or oil	
Don't know	101 (33.67)	Don't know	67 (22.33)

Out of 300 respondents, 198 (66.00%) answered 'Problem in teeth' from using majan/charcoal. More than fifty percent 159 (53.00%) and 30 (10.00%) answered 'Diarrhoea, Dysentery' and 'Worm infestation' transmitted through dirty nails respectively. About fifty percent 150 (50.00%) respondent and 37 (12.33%) answered 'Diarrhoea, Dysentery' and 'Worm infestation' transmitted if not washing hands after defecation respectively and the 115 (38.33%) and 99 (33.00%) answered 'Dandruffs' and 'Dandruffs, Lice' transmitted if not taking care of hair respectively. Regarding disease transmission, 113 (37.67%) answered 'Worm infestation' transmitted from using latrine barefooted. The majority 138 (46.00%) of the respondents answered that 'Eating excessive rice, meat, fast food and taking fat or oil' were avoidable for the prevention of obesity. Regarding the use of charcol 102 (34.00%) did not know its harmful effects. About 103 (34.33%), 101 (33.67%), 187 (62.33%) and 86 (28.67%) of the respondents did not have any knowledge of disease transmission through dirty nails, through hands if not washed after defecation, from using latrine barefooted and about problem if not taking care of hair respectively. Regarding avoidance for the prevention of obesity 67 (22.33%) had no knowledge (Table III).

Discussion

Findings of the study reflected that mean age was 40.83 ± 9.09 years. Majority of the respondents were female (53.67%) than male (46.33%). Among them, 17.67% respondents were quite illiterate. About 62.33% respondents did not have knowledge about transmission of diseases from using latrine barefooted. The habit of 'tobacco smoking', 'betel leaf & nut' and 'alcohol & ganja' were 18.00%, 14.67% and 0.66% respectively. In contrast and compare with other studies, the observation from the study conducted by Imtiaz et al. revealed that the mean age of the respondents was 33 years but in our study, the mean age of the respondents was 40.83 ± 9.09 years. Regarding educational qualification, 87.33% were educated in different levels and 12.67% were illiterate whereas in this current study 17.67% of the respondents were quite illiterate. Imtiaz et al. in their study revealed majority (74.67%) of them were housewives that are similar to our study.[8] The study observation conducted by Ghose et al. revealed that the practice regarding tooth paste use (80.6%) was higher in urban area and charcoal use (10.0%) was still found in rural areas.[9] Similarly in our study, majon/charcoal use (28.67%) was still found for cleaning teeth among the rural people. Farah et al. revealed that about 50% respondents brushed their teeth regularly with toothpaste but in our study it's more about (69.00%) of them brushed their teeth regularly with toothpaste. The study observation conducted by Farah et al. revealed that out of 475 respondents, more than fifty percent slum dwellers resided in tin shaded room while 21.7% in 'kancha' houses. The 66% percent of the respondents used to drink water from tube-well and 24% used supplied water provided by the city corporation. But in our study majority 93.33% drunk tube-well water. Farah et al. also revealed that near 59% of the respondents used sanitary latrine. About 67% slum dwellers regularly practiced hand washing before taking meal and 59.2% respondents used soap after defecation whereas in our study 14.33% used kancha latrines and 5.00% of them still used open field for defecation. Regarding personal cleanliness, they showed that 81% subjects took bath regularly while 78% washed clothes irregularly.[10] But in our present study, more respondents (98.33%) took bath daily. Also in our study majority (86.44%) of the respondents took their bath with 'soap and water' daily. Regarding knowledge, it was poor in our study that more than one-third (34.33%) respondents did not have any knowledge about the transmission of diseases through dirty nails and even after defecation (33.67%) if not hands washed properly. Thus this study evaluated the knowledge, attitudes and practices of hygiene among rural people of Bangladesh and assessed the extent to which proper knowledge on hygiene was associated with personal hygiene characteristics.

Conclusion

Study findings revealed lacking in maintaining personal hygiene among rural adults. There is need for continuous community hygiene education along with adequate access to safe water supply and sanitation in rural communities of Bangladesh. Community-based hygiene education is vital in order to decrease communicable diseases burden. The current study emphasized the importance of motivating the villagers of Bangladesh regarding this aspect by regular health education programs. Rural study emphasized the importance of motivating the villagers of Bangladesh regarding this aspect by regular health education programs. Rural people can be receptive to learning and they can also be agents of change by spreading what they have learned in hygiene education to their families and community members. Thus the study recommended that people should be made conscious for practicing personal hygiene through 'Behavior Change Communication (BCC)'. Successful low-cost but highly effective programs should be implemented that will considerably attenuate the communicable diseases burden among the people in rural settings.

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