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Knowledge and Awareness about Personal Hygiene among the Caregivers of the Children of Acute Watery Diarrhoea attending in a Tertiary Care Hospital

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Abstract

Background: Personal hygiene is very important during the management of acute watery diarrhea patients. **Objective:** The objective of the study was to assess the knowledge and awareness about personal hygiene among the caregivers of the patient of acute watery diarrhoea. **Methodology:** This Descriptive type of cross-sectional study was conducted in the Department of Paediatrics at Chittagong Medical College Hospital, Chittagong, Bangladesh from 20th March 2015 to 19th September 2015 for a period of six months. All caregivers were the respondents of children with up to 3 years old suffering from acute watery diarrhoea attended in Paediatrics unit of Hospital. This included persons residing in urban and semi-urban areas around Chittagong city, as well as persons transferred from hospitals in rural areas of the country. Sample was selected from the population by purposive sampling technique. The details of socio-demographic characteristics, including age, different questions of awareness and knowledge were recorded. **Results:** A total number of 100 patients were taken as sample for study. Mean age of the patient were 18.05 ± 6.78 month. Over half of the respondents (52%) make answered that personal hygiene means to remain neat and clean. Some of the caregivers (32.0%) maintain personal hygiene by clean hand properly with soap after using toilet. About 30.0% respondents reported that they do not know what to do before taking meal or feed the baby. Many of the respondents (45%) knew about the use of sanitary latrine and (45%) use of clean latrine is mandatory to maintain environmental hygiene. Majority of caregiver (38%) answered that waste products of child's may be harmless. **Conclusion:** In conclusion the knowledge and awareness about personal hygiene among the caregivers of the children presented with acute watery diarrhea is not satisfactory. *[Journal of National Institute of Neurosciences Bangladesh, January 2022;8(1):52-56]*

Keywords: Knowledge; awareness; personal hygiene; caregivers; acute watery diarrhea

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Introduction

Diarrhoea is a worldwide extended problem and a well-known disease in Bangladesh[1]. There are so many reasons behind the disease, but the important one is lack of awareness about Diarrhoea. Although the risk factors and etiology associated with diarrhoeal diseases are theoretically known, empirical evidence is lacking to target the important risk factors[2]. Specifically that can significantly contribute to its occurrence and way to minimize the risk factors and reduction of the disease at grass root level. Factors, such as maternal or caregivers attitude, practice, education, identifying the danger signs, and seriousness of the disease in the indigenous as well as other communities, may also hinder healthy

practices in the management of diarrhoeal diseases[3].

Diarrhoea is defined as the passage of three or more loose or liquid stools per day or more frequent than normal for the individual[4]. Variety of bacteria, viruses and parasites are the cause of diarrhoea. Infection spreads through contaminated food or drinking water or from person to person as a result of poor hygiene. Diarrhoea is both preventable and treatable disease. Fluid loss in diarrhoea has fatal outcomes and it is the leading cause of malnutrition[5]. Interestingly, the hygienic behavior or practice has expected association with incidence of diarrhoea. Thus, the practice of hand wash after defecation using soap or ash, and hygienic disposal of child stool are associated with lower incidence of diarrhoea[6].

Study showed that the knowledge of mother on perceived cause, recognition of danger signs, prevention, and management of Diarrhoea is inadequate[7]. The knowledge of mothers was found to be essential for reducing occurrence of diarrhoea for under-five children. On the other hand, considerable number of mothers from both indigenous and settlement communities had negative attitudes in some aspects of the cause, transmission, and management of diarrhoeal disease[8]. The gaps existing among mothers in understanding management of diarrhoea needs to be addressed by proper information, education and communication activities[5].

Various preventive techniques have been reported in the literatures including hygiene, diet, medications, and supplements, although according to a general classification, health care, breastfeeding, immunization, supplemental zinc, and probiotics could be used[9]. Simple remedies could be taken to reduce the number of mortality. Fluid therapy with oral rehydration solution (ORS) and other standard home solutions, non-stop feeding during diarrhoea and continued breastfeeding are the typical treatments[10]. Oral saline has been the cornerstone of management in order to prevent life-threatening dehydration associated with diarrhoea. The objective of the study was to assess the knowledge and awareness about personal hygiene among the caregivers of the patient of acute watery diarrhoea.

Methodology

This was design as descriptive type of cross-sectional study in the Department of Paediatrics at Chittagong Medical College Hospital, Chittagong, Bangladesh from 20th March 2015 to 19th September 2015 for a period of six months. Caregivers of the children of acute watery diarrhoea attending in Paediatrics unit of Chittagong Medical College Hospital, Chittagong, fulfilling the inclusion and exclusion criteria were selected as study population. Sample was selected from the population by purposive sampling technique. Non-random purposive sampling was adopted to subjects by interviewing caregivers after taking their consent. Caregivers of the children with up to 3 years old presented with acute watery Diarrhoea who attended in Paediatrics unit of Department of Paediatrics at Chittagong Medical College Hospital, Chittagong, Bangladesh were included as study population. Caregivers of above 3 years old patients of acute watery Diarrhoea, Caregivers who age below 18 years, Caregivers who psychologically ill, Patient with other morbidities were excluded from this study. Hygiene was defines as a set of practices performed for the preservation of health. Personal hygiene was involved those practices performed by an individual to care for one's bodily health and well-being through cleanliness. Caregivers have child less than 3 years of age were included. An informed written consent was taken from the participants and they were interviewed using a validated questionnaire. After fulfilling the inclusion and exclusion criteria, caregiver were enrolled with unique ID. Subjects briefed about the objectives of the study, risk and benefits, freedom for participating in the study and confidentiality. Informed consent was obtained accordingly. The pre-structured Case Record Form (CRF) filled up by the study physician herself. The case definition of operational variable had been described. This questionnaire was used for collection of information by interviewing patients. A score of more than 75% was considered good, 50-74% moderate and less than 50% poor. Different Knowledge Attitudes and Practices (KAPs) studies have used different analytic methods. Collected all questionnaire checked very carefully to identify the error in collecting data. Data processing work were consisting of registration of schedules, editing, coding and computerization, preparation of dummy tables, analysis and matching data. The technical mater of editing, encoding and computerization looked by me. Data for socio-demographic and clinical variables were obtained from all participants by the use of a pre- designed and easily understandable questionnaire. After collection of all information, these data were checked, verified for consistency and edited for finalized result. After editing and coding, the coded data directly entered into the computer by using SPSS version 6. Data cleaning validation and analysis was performed using the SPSS/PC software and graph and chart by MS excel.

The result was presented in tables in proportion. A "P" value <0.5 considered as significant.

Results

A total number of 100 patients were taken as sample for study according to inclusion, exclusion criteria, to assess the awareness, attitude and practice of personal hygiene among the caregivers of the patient of acute watery diarrhoea. The age group was divided into four groups: ≤6 month, 6 to 16 month, 17 to 26 month and 27 to 36 month. In this series, the maximum number of child patients 38(38%) were between 6-16 month age group, next 29(29%) were between the age group of 17-26 month. Mean age of the patient were 18.05 ± 6.78 month (Table 1).

Table 1: Age Distribution of the Diarrhoeal Patients (n=100)

Age Group	Frequency	Percent
≤ 6 months	13	13
6 to 16 months	38	38
17 to 26 months	29	29
27 to 36 months	20	20
Total	**100**	**100.0**
Mean ± SD	18.05 ± 6.78	

Table 2: Knowledge and Awareness Regarding Hand Washing Practice as well as water and food utilization among the Caregivers (n=100)

Variables	Frequency
Personal hygiene	
• To remain neat and clean	52
• To wear clean dress	27
• Different habits related to good health	13
What a person should do after using toilet	
• Use plain water	39
• Clean hand properly with soap	32
• Clean with ash/sand	27
Hand washing before taking meal or feed the baby	
• Not necessary to clean every time	36
• Clean with water	34
• Don't know	30
Hand washing after cleaning bottom of baby	
• Clean with water	48
• Children are innocent, no need to clean hand	29
• Clean hand properly with soap	18
Pure drinking water	
• tube well water	44
• Don't know	42
• Pond/river water	9
Eating time/manner of food	
• Don't know	62
• Just after cooking	21
• Several days later without preservation	16
Use of cover after cooking of food	
• Sometimes cover	43
• Food is away from dust, fly and other vectors	28
• Don't know	20

Over half of the respondents (52%) make answered that personal hygiene means to remain neat and clean, only 13% replied that different habits related to good health. Some of the caregivers (32.0%) maintain personal hygiene by clean hand properly with soap after using toilet, while others 32% give answer regarding plain water. Interestingly, 30.0% respondents reported that they do not know what to do before taking meal or feed the baby, and 36% caregiver considered Not necessary to clean every time. Knowledge regarding hand washing after cleaning bottom of baby by clean with water was mentioned by the 48% respondents. Table 3.7 shows that the majority of the caregivers (44%) have Knowledge regarding drinking of tube well water is safe and pure. About 62% respondents were those that said that they have not heard or known of eating time/manner of food taking and 21% caregivers mentioned that just after cooking. However, these categories of caregivers were maximum male participant. They (43%) were also reported that sometimes use of cover is good for cooking of food (Table 2).

The knowledge about sanitation known to the respondents was recorded. Many of the respondents (45%) knew about the use of sanitary latrine and (45%) use of clean latrine is mandatory to maintain environmental hygiene. Almost all the respondents were asked preserve privacy (42%) latrine should be

Table 3: Knowledge and awareness regarding sanitation (n=100)

Variables	Frequency
Defecation habit	
• Sanitary latrine	45
• A clean latrine	40
• Others	9
Criteria for an ideal latrine	
• Preserve privacy	42
• Should be clean	40
• Never contaminates surrounding water, soil	18
Childs waste product disposal	
• Waste products are harmless	38
• Sometimes disposed safety	27
• Don't know	26

clean (40%) and never contaminates surrounding water, soil are criteria for an ideal latrine. Majority of caregiver (38%) answered that waste products of child's may be harmless (Table 3).

Discussion

In this study a total of 100 caregivers attended in different Paediatrics unite of Chittagong Medical College Hospital, Chittagong have been selected. The age group has been divided into four groups like ≤6 month, 6 to 16 month, 17 to 26 month and 27 to 36 month. In this series, the maximum number of child patients 38(38%) are between 6 to 16 months age group; next 29(29%) children are between the age group of 17 to 26 months. Mean age with SD of the patient is 18.05±6.78 month. Study has been demonstrated that the prevalence of acute watery diarrohoea of male and female 6 to 16 months is highest. Out of 100 cases 31.0% are female and 69.0% are male. Male and female ratio is 2.22:1. The children are mostly in the younger age. Most cases of acute watery diarrohoea among children are occurred in this age group. Therefore intervention should be taken in this period. Similar study also reported by other studies[11-13].

In this study, caregivers have been asked what they does for their children with diarrhoea during initial response to childhood diarrhoea before the question or information. The aim of this strategy is to limit possible claims of regarding personal hygiene as an initial response just to appear to be doing the right thing. In their response to the question, about over half of the respondents (52.0%) make answered that personal hygiene means to remain neat and clean, only 13.0% replied that different habits related to good health. Some of the caregivers 32.0% maintain personal hygiene by clean hand properly with soap after using toilet, while others 32.0% give answer regarding plain water. Interestingly, 30.0% respondents reported that they do not know what to do before taking meal or feed the baby, and 36.0% caregiver considered not necessary to clean every time. Knowledge regarding hand washing after cleaning bottom of baby by clean with water was mentioned by the 48.0% respondents.

In a descriptive cross-sectional study[14] at Civil Hospital of Karachi, Pakistan it has been revealed the knowledge of mothers regarding diarrhoea and is found that 144(72%) mothers have considered loose and watery stool as diarrhoea. Regarding causes of diarrhoea, 94(47%) mothers said evil eyes, only 34(17%) considered contaminated water, eating mud (14%), teething (10%). Over half of the respondents (52%) make answered that personal hygiene means to remain neat and clean, only 13% replied that different habits related to good health. Some of the caregivers (32.0%) maintain personal hygiene by clean hand properly with soap after using toilet, while others (32.0%) give answer regarding plain water. Interestingly, 30.0% respondents reported that they do not know what to do before taking meal or feed the baby. Majority of the caregivers (44%) have Knowledge regarding drinking of tube well water is safe and pure. The knowledge about sanitation known to the respondents is also recorded. Many of the respondents (45%) knew about the use of sanitary latrine and (45%) use of clean latrine is mandatory to maintain environmental hygiene. Mumtaz et al[14] reported that regarding prevention of Diarrhoea, 15.5% mothers knew to cover food and 14.5% to boil water. Regarding health care seeking practices 52.5% mothers took the child to the doctor after 2 days, 30% mothers did self-medication.

Present study shows that, hand washing practice before taking meal or feed of the baby were observed in (45%) in sometimes and (44%) with plain water. Almost half of the respondents (56%) having practice of hand washing with water after cleaning bottom of baby and (20%) Considered children are innocent, no need to clean hand. Large number of the respondents (39%) drink tube well regularly, (23%) take pond/river water as source of drinking water. Cross-sectional study[7] in Zahedan, Iran reported that, 20 caregiver mentioned all of the three factors of cooked and cold food, unsafe water, and not washing hands as being the cause for Diarrhoea. Among the study population, 240 individuals positively responded to the question about the importance of vaccination in preventing of Diarrhoea. Only 137 participants were aware of the importance of measles vaccination in order to prevent severe Diarrhoea[7].

In this study approximately half of the respondents (42%) practiced defecation to the sanitary latrine; a substantial number (25%) uses open place, while few reported (22%) using latrine which maintain privacy. There were about (26%) caregivers that said that they used safety disposal to manage child's waste product disposal, but 25.0% respondents unknown regarding Child's waste product disposal. Merga et al[15] reported that knowledge of mothers about causes, transmission, and prevention of diarrhoea was 37.5% in their study. The overall knowledge in the indigenous community was 42.67% which was higher than that in the

settlement area (32.68%). As shown 140 (20.2%) respondents reported that diarrhoea can be caused or transmitted by drinking unclean or unsafe water[5]. Present study demonstrated that main constrains for practicing of hygiene noticed that lack of money (62%) is main cause and majority of caregiver considered Improvement of economic status (68%) and More NGO's activities (16%) can minimize these constrains. The result indicates that there was no significant relationship between attitude and practice. This implies that knowledge was not translated to personal hygiene practices.

Conclusion

There was an encouraging but not satisfactory personal hygiene as an initial measure to prevent Diarrhoea in more than half of the respondents. Many caregivers still unaware regarding safe drinking water, hand washing practice while some use different types of measured to maintain personal hygiene. Majority of the caregivers could not maintain personal hygiene; hand washing correctly and either drinking pure water or did not know what interrelation between AWD and fresh food, sanitation. A good starting point is to initiate new strategies aimed at improving caregivers' education on the different aspects of disease. Generally, caregivers' practice was unsatisfactory and not associated with his/her knowledge. More practicing manner can reduce the prevalence of Diarrhoea with other communicable diseases.

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