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Original article Knowledge on water, sanitation and hygiene (WASH) practice among cyclone Yaas affected people of Shyamnagar, Satkhira district

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***Abstract*---**Background: To reduce the spread of diseases linked to water and sanitation, better hygiene habits are crucial. It is equally necessary to provide proper sanitation service. Proper disposal of all waste as well as control of the carriers of communicable diseases. Objective: The aim of the present study was to assess the knowledge on water, sanitation and hygiene practice among cyclone Yaas affected people of Shyamnagar, Satkhira district. Methodology: A cross sectional study was conducted in the Department of public health, North South University, Dhaka. The duration of the study was from July 2021- September 2021. People of Koikhali, Gabura , Munshiganj union of Shyamnagar were the study population. After data collection and processing, all statistical analysis was done by SPSS software windows version 26. Result: 384 people from Shyamnagar were interviewed with a questionnaire. 84.11% respondents were utilized

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tube well water. Only 16% respondents were utilizing filtered water for drinking. Boiling of water were the most common method (66.13%) for water purification. 64.06% respondents thoughts that germ free water as the safe water. 58.07% respondents were used sanitary type of latrine. 84.11% respondents had the knowledge about hand washing technique. , hapazardly throwing was the approach used by 60.94% of respondents to dispose of solid waste products. Before eating, 67.97% of respondents just washed their hands with water. 59.11% of respondents just washed their hands with water after defecation. Of those surveyed, 64.06 percent routinely washed their clothes.71.86% respondents were utilized footwear regularly before using latrine. Conclusion: Effective WASH awareness program is required. Need an improved water supply and sanitation to help improve WASH practices.

***Keywords*---**knowledge, water, sanitation and hygiene (WASH).

Introduction

Many countries have a high prevalence of water and sanitation-related diseases, which can lead to many people being sick or even dying, especially children. If the spread of diseases linked to water and sanitation is to be stopped, improved hygiene practices are essential.[1] while implementing cleanliness education might help people change their behavior; most people need access to adequate water and sanitation facilities in order to transform their intentional changes into real ones[2].

The life of all creatures on soil, including humans, may depend on water [3.] It is essential to the survival of the majority of other life forms and has long been a necessary and life sustaining beverage for humans.[4]

About 65% of the mass of the human body is made up of water.It functions as a dissolvable for many actual solutes and may be an essential part of metabolic processes.Water provides many other domesti c, agricultural, and mechanical jobs in addition to keeping us alive.Without water, human life would b e absurd .[5]Access to water and sanitation may be essential to life, wellbeing, and dignity and constitut e a fundamental human right [6].Given the vulnerability of their situation, it is especially important to pr ovide clean water and sanitation services to evacuated people in a timely and satisfactory manner [7]. Whether they stay in camps or in metropolitan areas, the UN acknowledges that all refugees, refugee s earchers, internally displaced people, and returnees should have access to enough drinking water [1]. It is equally importantto set up adequate sanitary administrations.To reduce health risks and prevent p andemics, it is important to move all waste properly and restrict the spread of infectious diseases, incl uding flies, rats, mice, and mosquitoes [3]. Access to Water, Sanitation, and Cleanliness (WASH) may be a prerequisite for people to have excellent health and well-being as well as to benefit from economic growth. Without it, the growing population and economic growth tend to have the opposite effect on the most vulnerable segments of society, such as women, children, and underprivileged groups [8]. At

the global level, the infection burden from unsafe water, sanitation, and hygiene (WASH) is evaluated while accounting for various malady outcomes, primarily diarrheal illnesses. The chance factor is defined as the counting of various variables, namelythe consumption of hazardous water, the need for water associated with inadequate cleanliness, contact with hazardous water, and the state of destitute individuals and households in terms of cleanliness [9].

Materials & method

A cross sectional study was conducted in the Department of public health, North South University, Dhaka. The duration of the study was from July 2021-September 2021. People of Koikhali , Gabura , Munshiganj union of Shyamnagar were the study population. After data collection and processing, all statistical analysis was done by SPSS software windows version 26 to assess the knowledge on water, sanitation and hygiene (WASH) practice among cyclone Yaas affected people of Shyamnagar**,** Satkhira district**.** Purposive sampling was done according to availability of the subjects. Data were collected through interviewing of the subjects. All questions were closed-ended. The study was approved by the institutional ethical committee.

Results

Table (1) shows that most of the study subjects (54.95%) were male. 36.98% of study subjects were within the age bunch of 15-25 years, 21.09% in 26-35 years, 19.01% within the age bunch of 36-45 years and 10.94% within the age gather of >55 years. 88.03% respondents were the adherents of Islam and the rest 11.97% were the devotees of Hinduism .78.91% respondents were married and the rest 21.09% were Single. Most of the respondents (65.89%) were illiterate. Most of the respondents (36.98%) month to month salary was in between BDT 2500 to 5000.

Table 1
Demographic Characteristics of the respondents (n=384)

Variables	**n**	**%**
Age		
15-25 years	142	36.98
26-35 years	81	21.09
36-45 years	73	19.01
45-55 years	46	11.98
>55 years	42	10.94
Sex		
Male	211	54.95
Female	173	45.05
Religion		
Islam	338	88.03
Hinduism	46	11.97
Education		
Illiterate	253	65.89

primary	51	13.28
Secondary	42	10.94
Higher Secondary	23	5.99
Bachelor	15	3.91
Marital status		
Married	303	78.91
Unmarried	81	21.09
Monthly Income		
< BDT 2500	108	28.13
BDT 2500-5000	142	36.98
BDT 5000-10000	69	17.97
BDT 10000-20000	46	11.98
>BDT 20000	19	4.95

Table 2 shows that 84.11% respondents were utilized tube well water. Only 16% respondents were utilizing filtered water for drinking. Boiling of water were the most common method (66.13%) for water purification. 64.06% respondents thoughts that germ free water as the safe water. 58.07% respondents were used sanitary type of latrine. 84.11% respondents had the knowledge about hand washing technique.

Table 2
Factor related to WASH knowledge (n=384)

Variable	**n**	**%**
Source of drinking water		
Tube Well	323	84.11
Piped Water	31	8.07
Dug Well	19	4.95
Pond	11	2.86
Using purified water before drinking		
Yes	62	16.15
No	322	83.85
Method of water purification		
Boil	41	66.13
Filter	13	20.97
Other	8	12.90
What is Safe Water		
Germ free water	246	64.06
Smell free water	96	25
Don't know	42	10.94
Type of latrine use		
Sanitary	223	58.07
Non-sanitary	161	41.93

Importance to have latrine		
To keep surrounding clean	188	48.96
Free from odour	92	23.96
Safe from disease	65	16.93
other	39	10.16
Knowledge of hand washing technique		
No	323	84.11
Yes	61	15.89

Table 3 shows that, haphazardly throwing was the approach used by 60.94% of respondents to dispose of solid waste products. Before eating, 67.97% of respondents just washed their hands with water. 59.11% of respondents just washed their hands with water after defecation. Of those surveyed, 64.06 percent routinely washed their clothes.71.86% respondents were utilized footwear regularly before using latrine.

Table 3
Factor related to WASH Practice (n= 384)

Variable	**n**	**%**
Disposal Method of Solid Waste		
Throw haphazardly	234	60.94
Feed the Cattle	69	17.97
Burn	50	13.02
Other	31	8.07
Hand Washing Status before having Meal		
Only water	261	67.97
Soap and Water	35	9.11
Ash and Water	65	16.93
Don't wash Hand	23	5.99
Washing of Cloths		
Regular	246	64.06
Irregular	138	35.94
Hand washing status after defecation		
Only water	227	59.11
Soap and water	84	21.88
Ash and Water	65	16.93
Don't wash Hand	8	2.08
Bathing Practice		
Regular	311	80.99
Irregular	73	19.01
Use of footwear before using toilet		

Regular	276	71.86
Irregular	27	7.03
No use	81	21.09

Discussion

In our study most of the study subjects (54.95%) were male. 88.03% respondents were the adherents of Islam. 64.06% respondent's thoughts that germ free water as the safe water. Near to similar result were obtained in the study conducted by Hossain S.M et al study (2017) [10]. In their study they stated that 62.8% respondents were female, 78.1% respondents were Muslim and 56.3% respondents thought germ free water as safe. In our study 59.11% of respondents just washed their hands with water after defecation. Nizame, F.A et al (2015) conducted a study in Bangladesh [11]. They observed that 33.33% respondents just washed their hands with water after defecation. In our study 58.07% respondents were used sanitary type of latrine. Near to similar result were obtained in the study conducted by Borhan, T.A et. al (2024) study [12]. In their study they stated that 50% study subjects were used sanitary type of latrine for their convenience. In our study 71.86% respondents were utilized footwear regularly before using latrine. In south India a study conducted by Arun Gopi and Nagapraveen Veerapu (2018) [13]. In their study they observed that 80.7% respondents were utilized footwear regularly before using latrine.

Conclusion

This study suggested effective WASH awareness program is required. Need an improved water supply and sanitation to help improve WASH practices.

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Conflict of Interest
Authors declare no conflict of Interest.

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