

**KNOWLEDGE, ATTITUDE, PRACTICES OF WATER SANITATION AND
HYGIENE**

*Maria Zakria

**Sumaira Raiz

***Muhammad Afzal

****Syed Amir Gilani

*****Abdul Majad

Paper Received: 26.01.2021 / **Paper Accepted:** 28.02.2021 / **Paper Published:** 02.03.2021**Corresponding Author:** Maria Zakria; Email: mariazakria786@gmail.com; doi:10.46360/globus.met.320211001

Abstract

Objective: To assess the knowledge, attitude and practices of water sanitation and hygiene in the community.

Study Design:

The design of this study was quantitative descriptive cross sectional to assess knowledge, attitude practice of water sanitation and hygiene in community.

Place and duration of study

The study was held in Lahore community for 6 months.

Material and Method: In this analysis, a quantitative descriptive cross sectional design was used. The community had a sample size of 150. The purpose of this study is to examine the awareness, attitude and experience of water sanitation and hygiene in community. SPSS version 21 analyzed the results, mean and standard deviation was used to assess community awareness and attitude and practices on water sanitation and hygiene.

Results: The overall result of water sanitation and hygiene knowledge of the community was positive as regarding practices and attitude of about hygiene and water sanitation ,attitude was little bit positive but practices as negative about hygiene and water sanitation in the community .

Conclusion: This study showed that community behaviors were positive about water sanitation and hygiene with a certain percentage of community having a positive attitude and inadequate awareness of proper hygiene and water sanitation other studies have shown that awareness of water sanitation and hygiene is positive relative to behaviors and practices.

Keywords: Sanitation, Hygiene, Knowledge, Attitude, Practices.

Introduction

The spread of infectious diseases plays an essential part in insufficient sanitation practices, inadequate maintenance and inadequate sanitation. The lack of WASH awareness, actions and practice is among the most major factors of infectious disease transmission. For global health, clean and readily accessible water is vital because it is used for drinking, domestic use, food security or leisure purposes (Sridhar, 2018) [13].

A fundamental need for human livelihood, life, and well-being is contact to clean water, sanitation, and hygiene (WASH) facilities. Deprived water cleanliness and hygiene (WASH) affects all types of wellbeing and production, facilitates financial growth and progress, and is a most important barrier toward alleviating poor quality. By enhancing WASH procedures, many contagious illnesses can be capably controlled. By adopting the three main WASH activities, waterborne disease prevalence can be minimized. Make safe fecal disposal, and hand washing with soap will reduce the frequency of waterborne diseases by 30% and 40%, in that order, at important times. in the same way, healthy drinking water management and storage will decrease the incidence of infectious diseases by 30-50 % (Berhe, 2016) [3].

The main components of gastrointestinal prevention are improving examine to clean drinking water and proper hygiene, as well as promoting appropriate hygiene. A recent study by the World Health Organization in partnership with UNICEF suggested that an estimated 2.5 billion community lack enhanced hygiene facilities in 2006 (the last year for which data is available). In addition, almost 1 out of 4 people experienced open defecation in developed countries (Shrestha, 2017) [11].

Polluted water supply is suspected to affect

*BS Nursing, Lahore School of Nursing, The University of Lahore, PO box 54000, Lahore, Pakistan.

**Assistant Professor, Lahore School of Nursing, the University of Lahore, PO box 54000, Lahore, Pakistan.

***Associate Professor, Lahore School of Nursing, the University of Lahore, PO box 54000, Lahore, Pakistan.

****Professor. FAHS the University of Lahore. PO box 54000. Lahore. Pakistan.

502,000 death rates from gastrointestinal disease. Hygienic sanitation facilities are important for public health. In 2019, with a program in place to make sure that bodily excretions is managed or discarded of appropriately, 39 percent of the worldwide people used a properly managed sanitation system, not linked to other households, known as a toilet or improved latrine (Banda, 2017) [1].

Healthcare, hand washing, reproductive health and nutritional health, is multi-faceted and can include a variety of tasks. In all environments, worldwide appointments amongst WASH industry professionals have developed hand washing with soap and water as a high priority, and hundreds of thousands of people don't have any access to soap and water to wash their hands, avoiding an essential act which would allow them to stop the transmission of infections. Insufficient hygiene causes approximately **280,000** diarrheal diseases deaths per year and is a major factor in many preventable diseases, including intestinal parasites, tuberculosis and typhoid fever. Bad water hygiene may also cause weight loss (Sibiya, 2015) [12].

Many highly contagious diseases can be managed appropriately by developing WASH techniques. Infectious diseases incidence can be minimized by following the three primary WASH activities. Proper disposal of feces and urine and hand washing with soap at important stages will decrease the incidence of infectious diseases by 30% and 40%, similarly, the management and treatment of safe water supply will reduce the incidence of infectious diseases by 30-50 percent (Bastable, 2016) [2].

The 2016 Demographic and Health Survey (DHS) study in Ethiopia showed that only 57 percent of the rural population (HHs) obtains their drinking water from better source and 30 percent have no incidence of community gastrointestinal dysfunction in the toilet facilities was reported to be 12 percent. Need of WASH awareness, attitudes and perceptions is one of the major factors (Pavan Kumar, 2019) [10].

The efficacy of WASH is does not only contingent on the accessibility of WASH services, but also, the majority critically, on individual enforcement. except community have sufficient WASH KAP, healthy persons toward services is not sufficient to reduce health issues related to polluted water, the knowledge and experiences of people towards WASH can be evaluated by the poor reach of healthy WASH practices for hygiene and sanitation.

In **2015**, a safely administered drinking water supply was used by 71%of the worldwide people

(5.2 billion people), one situated on location accessible at what time required and free of pollution. 89% of the world's population **(6.5 billion people)** has at least one basic service. An better water system inside a 30 minute around trip to collect water is a basic service. A drinking water supply polluted with feces is used by at least **2 billion** people worldwide. Diseases can be caused by polluted water. Unhygienic water can spread disease such as diarrhea, cholera, dysentery, typhoid and polio.

Problem Statement

After visiting the community researcher found that community has the lack of information, approach, and observation of water sanitation and hygiene is the major issue in the community. Due to this reason the researcher decided to assess the Knowledge, Attitude, Practices regarding water sanitation and hygiene in the Community. The problem was prioritized by looking to various aspects like seriousness disease in the community. The community people have poor knowledge about water sanitation and cleanliness.

Purpose of the study

The purpose of this study to assess the information, approach and practices of water sanitation and hygiene in Lahore community.

Objectives of the study

To assess knowledge, attitude of water sanitation and hygiene practices in community Lahore.

Research Questions

What are the knowledge, attitude and practices about water sanitation and hygiene in community Lahore?

Significance of this study

The purpose of this study is to evaluate the awareness, attitude and practice of domestic water supply; hygiene and sanitation (WASH) on the safe disposal of feces and the time of the water storage container. This research can provide sufficient information and reinforce interventional interventions to improve WASH knowledge, attitude, and practice.

Literature Review

According to the WHO (2018) [15] study conducted in Ethiopia, the coverage of improved drinking water and latrine availability is the lowest in the country and even lowers than comparable countries such as Jordan, Zambia, and Liberia, which have 62%, 87%, 79% of latrine availability, while Ethiopia has only 12% for the same time.

Another study revealed by Ginja (2019) [6] nationally survey showed that within a depth of 1 km, about 63 percent of Ethiopia's rural populations have connected to the suitable water source. In Butajira, northern Africa, it was estimated that 54 percent of villagers walk to the source of drinking water within 15 minutes.

Another research conducted in Egypt by Kumie (2015) [8] reveals that hand hygiene studies have shown that respiratory and gastrointestinal problems are much less likely to be reported by childhood with proper hand hygiene techniques. It has already been recorded that hand washing with soap decreases diarrhea diseases incidence by means of 44 percent and asthmatically problems by 23 percent. Worldwide, moreover, the rate at which hands are washed with soap differs just from 0-34 percent of the time.

Another research conducted by the 2017 Global Public-Private Partnership for Hand Wash (PPPHW) which included several sub-Saharan African countries (i.e. Kenya, Senegal, Tanzania, and Uganda) revealed that while using the toilet, 17 percent of the respondents washed their hands with soap, while 45 percent used only water problems, i.e. soap and water, as well as insufficient sanitation.

In another report published in the rural Amhara areas of the state, only 21 per cent of outhouses had personal hygiene services, all of which found to contain soap, and much less than 4 per cent of the households had access to improved sanitation facilities.

According to WHO (2015) [16] approximately 89 percent of the world population has exposure to an adequate source of water, according to 2017 estimates (WHO/UNICEF, 2015). This reflects a 13 percent rise over the Millennium Development Goal (MDG) aim set for 2015, but most sub-Saharan African countries are not on track to reach the MDG goals. Just 64% of the global population has access to better hygiene, well below the United Nations millennium development target of 75% by 2015. In Sub-Saharan Africa and South Asia, progress on sanitation goals has been especially slow.

According to current reports by the World health (2015) Joint Monitoring System for Water And sanitation, only 56% of the community in Low - income countries have access to safe drinking water and 86% people without access to improved water sources.

In addition, According to Biran, (2016) [4] data on water system availability can increase the amount

of population with access to safe drinking water history More than 40 percent of middle and low income world populations depend on 'many developed' sources of water such as stand pipes, public taps or safe reservoirs that protects the place of departure from contaminants, and still need sources of water

According to Taylor (2015) [14], with 44 per cent of cases reported in Africa and 45 per cent in Haiti alone, 8,531 deaths were reported since the outbreak began as of December 2016.

Emerging evidence indicates that these 'other continued to improve' materials are still linked to significant decreases in water quality and lower quality of life when compared to households with on-site links to protected water supply, sanitation and hygiene (WASH) infrastructure, the World Health Organization (WHO) estimate that there are among 3-5 million cases of cholera.

Research Methodology

Study Design

A descriptive cross sectional study is designed to figure out assessing the knowledge attitude and practice of water sanitation and hygiene in community.

Sample Size

The population of this study was selecting of the community. The target population consists of 150 participants and all was the rural community.

Study Setting

This study was conducted in Lahore rural community.

Study Population

The community peoples was selected for the study population

Sampling

Simple Random sampling was used in this study

Research Instrument

A well written structured and adopted questioner from the study was used for collecting the data from the participant. After taking informed consent, data were collected from the community

Data Gathering Procedure

A formal written letter of permission to conduct the research. Also ethical approval was obtained from author to used this questionnaire and the questionnaire was distributed to the community mothers

Sample Size

Slovin's sampling will be used to find the sample size of the study population.

If the total population is 240

If N = population, n = sample size, E = margin of error

$$n = N / (1 + (N) (E)^2)$$

$$n = 240 / (1 + (240) (0.05)^2)$$

$$n = 240 / (1 + (240) (0.0025))$$

$$n = 240 / 1.06$$

$$n = 240 / 1.6$$

$$n = 150$$

Inclusion Criteria

Inclusion criteria was include all community peoples who willing to participate in our research study and who gave informed consent

Exclusion Criteria

An exclusion criterion was including those peoples who are not willing to participate in our research study. This segment will also exclude those who will be absent at the time of data collection process

Data Collection Techniques

Assess various families of the community for the purpose of identifying problems. Assessment including questionnaire, observations, focus groups, interviews.

Ethical Consideration

In this research ethical consideration was preferred. For this purpose the permission was obtained from the ethical committee of the health care institution, before data collection. Permission was acquiring a written approval from head of department of

Lahore school of nursing in the form of consent. Furthermore inform written and verbal consent was taken before data collection from participants. Mother was given with the right of autonomy and the nature and purpose of the study was informed prior to the implementation of any action. The risk related to this study was being discussed before. Participants was have right to leave the study participation at any time. In this case other participants was be added for the accomplishment of data information. Participant was informed about the aims of the study and secrecy of the collected data was assured. A written consent was taken from respondent those who was be prepared to participate in this study. All respondent was informed that their participation is highly appreciated and they can participate voluntarily. Participants will be taken in confidence that all the collected information and records will remain confidential.

Result and Data Analysis

Results and data analysis was taken up through systematically and logically techniques (SPSS) after the accomplishment of data collection process.

Results

This section presents the outcomes of the study

Profile of the Respondents

Section 1

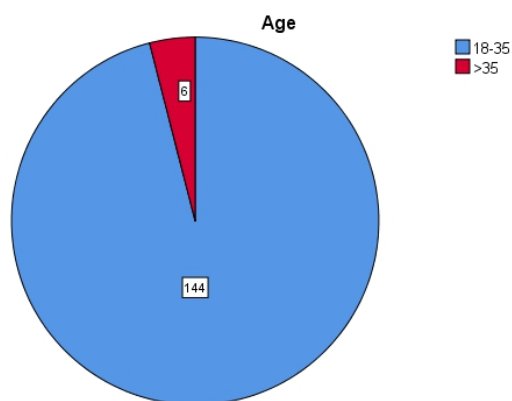
Demographic Data

Respondents were taken from Lahore community.

Table 1: Demographic Data

Age of the Participants

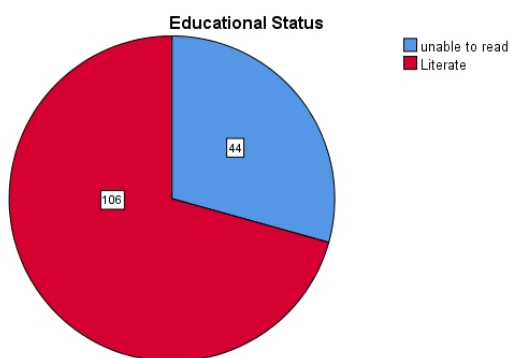
	Frequency	Percent	Valid Percent	Cumulative Percent
18-35	144	96	96	96
35 to above	6	4	4	
Valid Total	150	100	100	100



The above table show that 96% (n = 38) participants belongs to age group of 18-35 years, 4% (n = 6) participants belongs to age group to 35 to above in community.

Table 2: Educational Level of The Community

	Frequency	Percent	Valid Percent	Cumulative Percent
Unable to read	44	29.3	29.3	29.3
Literate	106	70.7	70.7	
Valid Total	150	100	100	100



The above table show that 29.3% (n = 44) of community peoples was unable to read, 70.7% (n = 106) of community people was Literate.

Section II

Table 3: Knowledge of the Community About Water Sanitation and Hygiene

SrNo	Question	Response	f (%)
1	Pipe water safe for drinking?	Yes	135(90%)
		No	15(10%)
		Total	150(100%)
2	Distance of source water from home in meter?	<10m	120(80%)
		101-200m	30(20%)
		Total	150(100%)

3	Safe water is essential for health?	Yes No Total	120(80%) 30(20%) 150(100%)
4	Safe excreta disposal system?	Use of latrine Open defecation Total	111(74%) 39(26%) 150(100%)
5	Reason of using latrine?	Privacy To control disease Total	106(70.7%) 44(29.3%) 150(100%)
6	Reason of not having solid waste disposal?	No ample space Fear of children and animal fall Total	111(74%) 39(26%) 150(100%)

Section III

Table 4: Attitude of Community About Water Sanitation and Hygiene

SrNo	Question	Response	f (%)
1	Water from any source safe for drinking and domestic use?	Agree Disagree Total	126(84%) 24(16%) 150(100%)
2	Water free from visible particle safe for drinking?	Agree Disagree Total	125(83.3%) 25(16.7%) 150(100%)
3	Dirty water can transmit disease?	Agree Disagree Total	129(86%) 21(14%) 150(100%)
4	Pipe borne water always safe?	Agree Disagree Total	125(83.3%) 25(16.7%) 150(100%)
5	Treated water are prevent from disease?	Agree Disagree Total	129(86%) 21(14%) 150(100%)
6	Hand washing facility connected to the latrine is safe for health?	Agree Disagree Total	127(84%) 23(15.3%) 150(100%)
7	Diarrhoea illness related to hygiene practices?	Agree Disagree Total	132(88%) 18(12%) 150(100%)
8	Income is facilitating poor sanitation?	Yes No Total	128(85.3%) 22(14.7%) 150(100%)
9	Using the same latrine with other family members is comfortable?	Yes No Total	120(80%) 30(20%) 150(100%)

Section IV

Table 5: Practices of Community About Water Sanitation and Hygiene

SrNo	Question	Response	f(%)
1	Frequency of hand washing?	Always before doing some thing Always after doing something Total	118(78.7%) 32(21.3%) 150(100%)

2	Utilization of latrine?	Properly Improperly Total	117(78%) 33(22%) 150(100%)
3	Kinds of solid waste disposal?	Disposal in pit Burning Total	35(70%) 15(30%) 150(100%)

Results

The majority of 126 (84 percent) respondents know private sinks are suitable for drinking and household use, while 135 (90 percent) of participants are safe for shared taps. In contrast, 125 (83.3 percent) believe that hand pumps are secure and 25 (16.7 percent) knows that unprotected wells are safe for any reason. Approximately 120 (80 percent) of participants had awareness of bad basic hygiene, where 30 (20 percent) of participants had awareness of other respondents in relation to improper cover. Most of the 129 (86 percent) respondents were informative about the dirty place or domestic attracted flies whereas 21 (14 percent) of the participants would have an incorrect answer to the question. The analysis reveals that most of the 127 (84.7 percent) respondents knowledge about hygiene practices, 111 (74 percent) did know about the proper disposal of feces. The majority of participants are conscious of a need for 129 (86 percent) sanitation healthy well for the need for hygiene Hand washing with soap 127 (84 percent) was the means of preserving the participant's healthcare. The value of sanitation and hygiene was 129 (86 percent) for disease control, 132 (88 percent) for diarrheal prevention and 18(12 percent) for germ elimination. Poor odor was distinguished from lack of sanitation in their atmosphere 111 (74 percent), open bodily excretions 39 (26 percent). Most of the participants were using safe drinking water for respiratory infections disease prevention 125 (83 percent), 117 (78 percent) disposed of infant faeces in public toilets. Mostly resident's hand washing 118 (78.7%) always before doing something, and 32(21.3%) of residents wash hand always after doing something. Majority of the participants 117 (78%) was utilized latrine properly with washing the hand. And 33 (22%) of participants utilized latrine with improperly. On the other hand 78 (52%) of participants was solid waste disposal in pit and 72(48%) burning the solid waste disposal.

Discussion

The majority of participants 126 (84 percent) understand that public pipes are protected for drinking and domestic use at the same time as 135 (90 percent) popular taps are safe and 125 (10.5 percent) are also experienced with water filter is safe and 16 (5.3 percent) differentiate unsafe well for any reason. An exploratory research linked to the use of potable water and domestic use in South

Africa is protected by 128 (93%) of the population (Johnson, 2016) [7].

The respondents in this study n = 106 (70.7%) the most important cause to using the latrine for isolation, and control the infection. This result is in procession with the study report by Telmo (2016) in Nigeria country majority of 80% of residents using of latrine to control the infection.

A large number of participants 129 (79.3 per cent) were well aware that "hygiene is a collection of methods for collecting human secretions, urine and community desecrate in a hygienic way," while 126 (74 per cent) of participants had an incomplete response to the problem.

Reported by USAID (2015), this is even less relative to the study. Nearly all of the population knows sanitation is a set of processes to collect waste material, urine and population waste in a soiled manner. The public's awareness is modified in a different way. Much of the research area group were aware that this may be attributed to awareness development by multiple means such as the creation of popular communication of extension developers and which opposes the Income and economic (2017) guidance document, which is around 17.4 percent. These variations are almost definitely due to the inclusion of urban populations in this analysis, which would be similar to the WHO survey (WHO, 2018).

For most people, the most significant proper water supply also uses pipe-borne water in their homes (83 percent), which are all regarded as a better source of drinking water and then together make up a total of 92 percent of the water that residents use, which is high compared to other studies recorded by Oxfam/Unicef, (2015).

"Another study on waste disposal 51.4 percent of participants had a constructive outlook, while 24.6 percent and 24 percent of the participants would have an unfavorable attitude in that order to the view that "the effect of adequate waste management in open spaces and approximately road sides causes the region to lose its natural beauty, bad odor to the environment, social health issues and polarity, (WHO, 2017).

Most participants had a favorable view of 116 (70 percent) relative to the study area, while 21 (7.1

percent) of participants had a poor opinion and perception to the problem that can lead to the transmission of infectious diseases in the properly disposing of liquid and solid waste. In contrast, 126 (83.9 percent) of the participants had a healthy perception, while 32 (10.8 percent) and 16 (5.2 percent) of the participants had a negative and neutral behaviour to the perception that the disposal of hazardous resources is not an issue in that region, which compares the research recorded in African Countries is less (Corps, 2016) [5].

In the study region, 43.5 per majority of people discarded their solid waste in the open space, 31.2 per majority of people throughout the field and 25.3 per majority of people in the waste disposal and 114 (87.4 per cent) of participants disposed of their waste water throughout the ground where 36 (12.6 per cent) of participants were grounded (Biran, 2016) [4].

Biran (2016) [4] Improved maintenance of sanitation facilities has been identified as reducing challenges, increasing environmental resource sustainability and enabling a better, safer future for the community. All hygiene innovations are considered sufficient as long as they are shared with the population more privately and as long as there is a sanitary isolation of waste materials from human contact. Owing to issues with follow - up call in their management and availability at night by elderly, disabled and toddlers, public latrines fail to provide a more appropriate solution to the community waste collection and disposal needs. This should be noted that these weaknesses often lead to open feces or insufficient removal of excreta, often affecting susceptible aqueous habitats or posing effects of human contact.

Usually, some of the people provide awareness and attitude about water system, hygiene and sanitation and they're not practice what they know. Hygiene progress is significant and it may take a long time to note the impact it may be accomplished by raising awareness on the bad effects of poverty sanitation to the human health, collaboration between various parties and assume responsibility in adopting and enforcing laws and rules that are linked to health safety and hygiene by the policy.

Limitation

Study was conducted during short period of time. Data collected from community knowledge, attitude and practices about water sanitation and hygiene

Conclusion

Based on these results, that was likely that the majority of participants were informative about supply of water, hygiene and sanitation;

furthermore, it was not adequate as the water supply, hygiene and sanitation is one of the fundamental elements of public health and development, and it has been anticipated that most citizens would acquire high levels of knowledge. Whereas most of the respondents didn't practice what they learned. Most of the participants had a favorable attitude towards water supply, sanitation and hygiene, although others were consistent with the attitude of the people. These differences may be due to a lack of awareness and facts, or the presence of poor social expectations relating to WASH in the community's value system. The majority of people have not taken steps to improve the hygiene of the community in their living areas.

Conflict of Interest

There is no conflict of Interest between the authors of this manuscript.

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