

Research Article

IMPROVING HEALTH OUTCOMES AMONG DIFFERENT PEOPLE AND IMPACT OF WATER, SANITATION AND HYGIENE INTERVENTIONS

*Riffat Naheed, Zara Tarrar, Hifiz Irfan and Hameeda Rizwan

1Department of Management Sciences, Shifa College of Nursing Tameer-e-Millet University, Islamabad, Pakistan

Received 06th February 2022; Accepted 14th March 2022; Published online 30th April 2022

Abstract

Water is a crucial resource that is required for survival. Without that, we would not exist in a matter of days. Access to a safe and affordable drinking water source is widely recognized as a basic human requirement for one generation and an also before the for the growth and survival of next. Water scarcity, poor sanitation, and irregular supply have all had negative consequences on people's health. We have done a wind shield survey in a specified community for their need assessment and after that we prioritize their needs and found a shocking condition which is contaminated drinking water which causes disease burden in a community. The water supply which they are using for consumption and their household activities is very unsafe because it is contaminated. The water coming in their houses is contaminated with garbage and pipe leakage causing in water borne diseases. So, people were interviewed in the community through their given information. Literacy rate is 23 % in their community. We interviewed many people in a community and through interview we still found it as a major problem. As the literacy rate is also low and due to lack of resources people are compelled to use it but we provided necessary information and enhance their knowledge regarding the issue that how they can pro protect their lives from diseases by purifying water from their own.

Keywords: Sanitation, Infection, Health and pollution.

INTRODUCTION

Owing to the adequate sanitation system consumption irrigate quality deteriorates, the happening of toxic chemicals and bacteria in drinking irrigate sources have adverse effects on human well-being due to the fecal detoxification. Waterborne illness is defined as a situation in which two or more people experience the same symptoms following drinking water. People have been suffering from irrigate infections in rural and urban areas of Pakistan. In cases of irrigate borne infections typhoid, dysentery, cholera and hepatitis are reported. However it is exact hard to quantify the possibility due to some reasons they contain underreporting of infections and poor record conservation in healthcare centers and hospices associated to illnesses affected by poor irrigate quality infected. Aqua is one of the major leading reasons of health problems and deaths (WHO chronicle 2011). In Pakistan according to world health organization who polluted irrigate usages is currently responsible for high rated risk of irrigateborne infections world health organization whose assessments approximately 47% of males and 12 of females smoke worldwide in developed countries 48% of men and 7 of women smoke while in undeveloped countries 42% of males smoke as related to 24 of women. The consumption of poor inferiority water supply causes water system borne infections and their spread in Pakistan about 50 of infections and 40 of death happen due to infected drinking water system inferiority reported in community health studies above 80% of the people of provinces are utilizing hygienic drinking water system that derives from external and ground sources surface water system possessions are clean and adequate for drinking but in the south the color of groundwater system is blackish.

*Corresponding Author: Riffat Naheed,

Pure water systems are also located in depth, but aquatic availability is excessive at the middle of groundwater supply and is pumped out through the use of tube wells for everyday usage. Due to various insufficient treatment of deteriorating piss and an outdated sanitation system in Pakistan's metropolitan centers, the drinking quality and quantity of the water supply resources in the north are surface water supply resources and springs. Infections are achieved through the combination of municipality industrial and sewage waste at various points in the supply network, as well as a lack of water disinfecting & environmental monitoring for treatment facilities. Waterborne infections, such as typhoid intestinal worms, account for 40 percent of infectious diseases in Pakistan, according to the Pakistan National Conservation Strategy. Gastroenteritis and diarrhea According to the International Union for Conservation of Nature, Pakistan has the highest rate of baby fatalities due to diarrhea induced by water (Daud et al., 2017). Due to Pakistan pipe-born water risk index sanitation, now a day's government of Pakistan is going to arrange water filter for pure drinking water all over the country (Daud et al., 2017). The WHO and UNICEF joint monitoring database for aqua supply sanitation and cleanliness (JPM, 2017) reported that 844 million people worldwide have lack of access to pure water facilities and 23 billion lacks of basic cleanliness facilities. While 892 million still adept open elimination unlucky quality of pure water lack of access to inadequate sanitation increases the risk of diarrhea the importance of access to better-quality consumption water and hygiene is highlighted. By cha et al 2017, suggesting that intervention to improve water and sanitation can potentially decrease diarrhea by 25 globally. It was probable 17 billon of add acute diarrheal diseases and 22 million deaths from add in one year. One of the studies done in India which shows an outbreak of add acute diarrheal disease in the village was caused by impurity of drinking water insufficient drinking water lead to 58 acute diarrheal disease there is strong

Department of Management Sciences, Shifa College of Nursing Tameer-e-Millet University, Islamabad, Pakistan

implication between impure drinking water poor hygiene and the prevalence

"Anyhow, this research has been done to estimate the effectiveness of water, sanitation, and hygiene application along riffled to controlled clinical try-out for measure the longterm effect of these involvements for better child health benefits. The objective of the study is to measure and explain the gaps in the existing water, sanitation, and hygiene involvements to boost child health benefits like acute respiratory infections, and diarrheal episodes". Community at Bari Imam, Mullah Nori Bagh need assessment done through windshield survey. Problem identified in public by asking questions from them there was poor cleanness system many pit holes in street which were open there were drain pipes broken leakage and overflow on the street and small kids roaming in street with bare feet. We visited some families asked question about their living condition, health problems and facilities. It was found impure quality consumption aquatic mostly families have no water filter and supply of water through pipes from one house to another house. There was no gas supply. All the wires of electricity were hanged on walls and trees. Through interview, we come to know midwife were not using accurate guidelines and unsterilized equipment. Major issues were poor personal hygiene, no proper sanitary system, and unclean drinking water, no proper disposal of garbage, insecure structure of houses, hazardous electrical system dirty and bare footed kids prioritization teaching topic contaminated drinking water.

The main goal of this study is to determine the microbiological quality of both municipal (tap) and subterranean (borehole) water in Nori Bagh Bari Imam, Pakistan. A health research was completed to determine the potential health concerns associated with drinking water. It may be inferred that the vast majority of the collected samples (96 percent) failed to meet national and international drinking water standards. To guarantee the city's citizens have access to safe drinking water, immediate action is required.

By the end of this community health nursing project we have able to achieve below mentioned objectives

- Identify the knowledge level of community people about unclean water.
- Distinguish the common sign and symptoms of illnesses among people.
- Investigate risk factors of unsafe water.
- Describe the importance precautionary measures for health.
- Elaborate the prevalence of infections with contaminated water in the Bari Imam community.
- Assess the practice of management of diseases

RESEARCH METHODOLOGY

Research design

Assessment for community assessment pre-set list of question were used which were built specifically for community problem and focus on the main problem community visit at nori Bagh Bari imam Islamabad its population approximately 1000 houses in this colony about 95 of people of this community are Muslims and 5 are other religious peoples people of residence in this colony are Panjabi, Urdu, Sindhi, pakhatoon, pothari average size of family was 6 members per family total population of community.



Figure 1. Graphical design for community assessment

Survey Consideration

Windshield survey was done to know how many people are aware about water borne diseases and hygienic water, get to know how many people are not well aware about water borne diseases. After that taken verbal consent to inform the people about the nature of survey. We visited some families asked questions about their living condition, health issues and facilities. It was found poor quality drinking water, some families have no water filter, and small sizes of houses supply of water through pipes from one house to another house. There was also found drain pipe broken, leakage and over flow on the streets.

Data Collection and Methods

A questionnaire was used as a tool to visit home and for data collection. The questionnaire has been pilot tested among the 91% out of 100% sample size. The questionnaire includes multiple items. The first seven questions were identification questions of demographic data like gender, age, occupational status, marital status, education status, and immunizations status. The remaining questions were used to check prevalence of the identified problem. Data were collected from October 06, 2021. Thirteen data collectors divided into two group. The data collector provided them with proper information about the project and clearly defined the purpose of collecting data from them. The participants were assured that information will remain confidential and privacy will be assured and will not have effect on them socially. Total questions were 24 and indicators was yes/ no and multiple choices.

Planning

Goals, Objectives, Strategies and Evaluation Indicator: For successful implementation there must be effective planning in order to carry out best outcomes. Planning for our field project started as our community clinical started. Our project had a goal and the goal to promote awareness regarding water borne diseases in community. From the very first day, we started to form objectives and worked on them, through wind shield survey we did pilot study. Our main objective for the project was to conduct an implementation session after data analysis. For successful achievement of objectives, we used those strategies that were effective and can have a good outcome. We made charts, panaflexas a strategy; venue selected for the implementation session, our every strategy was discussed with faculty and was then finalized.

Public Health Interventions: After identifying the problem related to the community, we came to know that most of the people living in this community were unaware of the dangerous effects of contaminated water on their health. For the betterment of the community, we helped the community by providing them knowledge also providing awareness, we counsel them by effective communication skill with the help of effective implementations techniques e.g. pana-flex and chart, which we used was the best method for all the members of the community as it was in Urdu language and everyone can understand it easily. We also placed our charts, pan flex on the walls of the rotary Shifa clinic, so people can access when they need to refer to it. We planned our strategies by keeping in mind the residents of that community that how they will better understand and, how they can be motivated. The language we used was helpful to the people of the community to understand quite well as they majority were Pothari speaking and, we tried our level best to make them all understand (Grunwald, 2016).

Literature review for public Health Interventions: During our survey in Bari Imam it was noticed through windshield survey that people of the community were using shared bathroom, it was practice in many houses in Bari Imam, Literature was reviewed like in Indian and Bangladesh community was also sharing sanitation. Out of 162 papers on shared sanitation, 43 employed epidemiological approaches to investigate the link between sanitation and diarrheal illnesses, according to the literature survey. Only 14 of the 43 publications found a direct relationship between sanitation usage and diarrheal disease infections, while another eight found a link amongst improved sanitation and helminth infections (Ramlal et al., 2019). Despite the lack of evidence for a direct relationship between shared sanitation and the occurrence of diarrheal/STH illnesses. There are few examples of a coincidental link between sharing sanitation as well as community-acquired diarrhea (Clasen et al., 2012). Education and working status of mother were considered to describe that the socio economic factors affect childhood diarrhea. To avoid the contamination, not only the source of drinking water should be considered, but also the treatment, mode of transportation to the consumer, and the frequently to which it is tested. Intermittent water supply should be minimized, and joining and bending techniques should be given more attention. Pipes must be inspected and changed on a regular basis. The major way of combating harmful bacteria as well as viral pathogens is disinfection. Water and sanitation education should be provided to the general public. To avoid illness, every home should have a piped water supply (Mohammed and Tamiru, 2014).

Implementation

Effectiveness of Implemented Interventions: All interventions were implemented successfully at individual, family and community level. While taking interview during data collection process we delivered teaching to those people who were on high risk to have water borne diseases. By effective communication we tried to aware them about how to make their drinking water safe and clean with the aim of decrease the risk for waterborne diseases. Their concern related to access of clean water were answered efficiently (Ahmed *et al.*, 2015). At community level we tried to aware people how they are wasting their life by drinking contaminated water and, what

impact it produces on each vital part of the body. During session, discussions were carried out and community people asked questions and we as a group tried to satisfy them by giving answers. All interventions used were effective and relevant.

Appropriateness of interventions: All interventions that we used while implementing were within estimated resources and were appropriate to the topic on which we were presenting. We conducted teaching session at rotary shifa clinic, the interventions or strategies we used were simple but effective. We wanted to show them videos about how contaminated water affects their health but because of non-availability of multimedia it was not possible for us to do that. All interventions we used were effective as the response from the audience was very energetic and they participated quite well throughout the session. They were not only showing the response that they have understood what we were trying to tell them, but they also did question which was relevant and was showing how much they are involved in the session. Their involvement was a positive sign for us as it showed how much our interventions were effective and appropriate.

Collaboration with Community, PHC Team and Stake Holders: For effective implementation collaboration is necessary with community members and stake holders. On the first day we contacted the stake holders of the community and afterwards as our project proceeded, we met different community members who wanted to improve their water resources. So it played important role in our project implementation. On the day of implementation stake holder was unable to join the session, because of his busy schedule, but he promised his level best to have access to clean water for the community. He stated" They are not allowed by CDA and Supreme court order because of illegal residence of Bari Imam and encroachment.

Creativity While Implementing Interventions: To make our implementation effective and creative we used different strategies according to the situation and changed according to it. First thing that we talk with rotary clinic people take this place for teaching session. Second thing we tried to convince people who were interviewed, to come and attend this session and it would be informative for them and they can then educate other people, who were not present at that time. We tried to restate our sentences for their better understanding. There was female who shared, that she is using boil water for drinking, so her children are not getting diarrheal issue, and one family verbalize that they are using one machine for cleaning their drinking water and she is also providing that water to her daughters in law. These are examples how people can help themselves, and it encourages others to adopt these types of means to access clean water for drinking purposes.

Self-Directedness and Group Work: Self-directed group work is a combination of different skills and talent that work together to achieve some common goals. Our group was similar in this regard. We worked together not only in the planning phase but also in the overall project. When objectives were set, they were being divided among each and every group member according to their talents. Every member contributed equally in planning for the implementation. Every member was given specific task that was supposed to be achieved within a given time frame. And also, few members entered the data in SPSS for analysis. We also decided which place would be suitable for implementation of the project, also discussed with faculty and will be accessible to the people. We all together planned how we will carry out our teaching session. **Evaluation**

Output Indicator: Output is the direct immediate term results associated with a project. In other words, they are usually what the project has achieved in the short term. The output of our project was that the community people got awareness on the impact of contaminated water on their health and how it is harmful for health. Charts and pana-flex were handed over to the community people so that they can know more about uses of clean water benefits and can able to aware other people who were not present in the seminar.

Outcome Indicator: Outcome refers to the medium-term consequences of the project. In other words, outcomes relate to the project goal or aim. Our project goal was to promote awareness regarding water borne diseases in community, find number of people who were using contaminated water causing waterborne diseases, and our aim was to aware people about the negative consequences of contaminated water. Teaching session was arranged to aware people how to prevent them from water borne diseases.

Impact Indicator: Impact is the long-term consequence of a project. For long term achievement of our project our pana-flex and charts pasted to the community access area where they are visiting on daily basis. We approach some stakeholders to attend our session but unfortunately they are not available but we request them to arrange filter plants in their area as a small group contribution can be achieved, they promised to follow for the betterment of their community.

RESULTS AND DISCUSSION

Important outcomes

The result of our project was in accordance to our objectives and goals. The comments that we had received after our implementation session were a positive feedback. The way of young people were present at our session ask questions and showed interest in our session told us that what we wanted to achieve was in realistic manner.

Analysis

Gender Analysis: Data was collected from 22 participants.14 (63.6 %) participants were between the age of 21-30 years, 3(13.6%) participants were between the age of 30-40 years, 5(22.7%) participants were between the age of 50-70 years.



Figure 2. Chart shows different participants

Infection and grade level Analysis: The immunization status of participants 21(95.5%) were completed and 1(4.5%) uncompleted. In analysis to the question members in the family's 6(27.3%), 4(18.2%), and 12(54.5%).In analysis the result of sources of drinking water were supply water 21(95.5%), wells 0%, boring water 1(4.5%). Result of sources of income were 2(9.1%) government job, 12(54.4%) private job, 8(36.4%) personal job and the monthly income results were 15(68.2%) more than 20 thousand, 4(18.2%) more than 30 thousand, and 3(13.6%) more than 40 thousand.

Household Analysis: In analysis we have to found the results of preferable food were including 13(59.1%) vegetables, 4(18.2%) meat/chicken, and 5(22.7%) pulses. The results of drainage system of community were 16(72.7%) gutter, 4(18.2%) main holes, and 2(9.1%) open drainage system.



Figure 3. Chart showing different drainage system

The results of dispose garbage were by committee 4(18.2%), by CDA 10(45.5%), and by themselves 8(36. 4%).Further more: the results were boiled water 2(9.1%), unboiled water 19(86.4%) filtered water 1(4.5%) used for drinking by families of community.

Health care Analysis: In analysis to the question, if people suffering from diarrhea 2(9.1%) were taking self-medication, 6(27.3%) were using ORS, 14(63.6%) went to hospital for treatment. 12(54.5%) ORS buy from bazaar, 7(31.8%) people prepare ORS at home, and 3(13.6%) were people not used.



Figure 4. Chart showing about family members care

Pilot Study

Note: formula = Obtained data/total data*100 Percentage of given data.

	Post RN II 2020 Group A	Faculty: Sir Hafeez					
S. No	Questions		Obtained data	Total House	%		
1.	Age of participant.	21-30	14	22	63.6		
		30-40	3	22	13.6		
		50-70	5	22	22.7		
2.	Gender of participant.	Male	8	22	36.4		
		Female	14	22	63.6		
3.	Profession of participant.	Government job	1	22	4.5		
		Daily wages	13	22	59.1		
		Private job	8	22	36.4		
4.	Education of participant.	Primary	12	22	54.5		
		Middle	4	22	18.2		
		Matric	6	22	27.3		
5.	Marital Status of participant.	Married	19	22	86.4		
		Unmarried	3	22	13.6		
6.	Immunization status.	Completed	21	22	95.5		
		Uncompleted	1	22	4.5		
7.	How many members in your family?	2	6	22	27.3		
		4	4	22	18.2		
		More than 4	12	22	54.5		
8.	What are sources of your drinking water?	Supply water	21	22	95.5		
		Wells	0	22	0		
		Boring water	1	22	4.5		
9.	What is source of income?	Government job	2	22	9.1		
		Private job	12	22	54.5		
		Personal job	8	22	36.4		
10.	How much your monthly income?	More than 20 thousand	15	22	68.2		
		More than 30 thousand	4	22	18.2		
		More than 40 thousand	3	22	13.6		
11	WHICH TY	Vegetables	13	22	59.1		
	What kind food is preferable?	Meat/Chicken	4	22	18.2		
		Pulses	5	22	22.7		
12	What is water drainage system in your community?	Gutter	16	22	72.7		
12.	what is water dramage system in your community.	Main holes	4	22	18.2		
		Open drainage	2	22	91		
13	How do you dispose garbage?	By committee	4	22	18.2		
10.		By CDA	10	22	45.5		
		By themselves	8	22	36.4		
14	What kind of water your family drink?	Boiled water	2	22	91		
11.	what kind of water your family armit.	Un Boiled	19	22	86.4		
		Filtered Water	1	22	4 5		
15	What health care facility preferred by you and family?	Government hospital	13	22	59.1		
1.0.		Private hospital	7	22	31.8		
		Self-medication	2	22	91		
16	Have you use any family planning method?	Yes	13	22	59.1		
10.		No	9	22	40.9		
17	How many suffering with DM and HT in your family?	Yes	8	22	36.4		
17.	from many surforing what Divi and fif in your family?	No	14	22	63 3		
18	Do you have any family member often smoke?	Ves	5	22	22.7		
10.	20 you have any funnity memore often smoke:	No	17	22	77 3		
19	If your family member suffering from diarrhea what you do?	Self-medication	2	22	91		
1).	If your failing memoer suffering nom diarmed what you do?	OPS	6	22	27.3		
		Went to Hospital	14	22	63.6		
20	Do you have any family member suffered from Hapatitic?	Ves	15	22	68 2		
20.	bo you have any family memori suffered from repatitis?	No	7	22	31.9		
21	Do you have any family member suffered from typhoid?	Vec	14	22	62.6		
<i>2</i> 1.	by you have any family memore surficed nonityphold?	100	17		05.0		
		No	8	22	36.4		
1		110	0		JU.T		

			Participant 1	Frequency Table	е	
			Age of	participant		
		Freque		nt Valid P	Percent Cun	nulative Percent
	Valid 21	1-30 198 0-40 77	61.7 24 0	61.7 24 0	61.7 85 7	,
	50	0-70 46	14.3	14.3	100	0
	Te	otal 321	100.0	100.0		
			Gender Fr	equency Table		
		Frequ	Gender of Perce	of participant	Percent Cu	mulative Percent
	Valid Ma	ale 101	31.5	31.5	<u>31.</u>	5
	Fe To	male 220 tal 321	68.5 100.0	68.5 100.0	100).0
			Profession I	Frequency Table	2	
Profess	sion of participant.		Frequency	Daraant	Valid Dargant	Cumulativa Daraant
Valid	Government	employee	Frequency 27	8.4	8.4	8.4
	Daily Wages		184	57.3	57.3	65.7
	Private emplo Total	byee	110 321	34.3 100.0	34.3 100.0	100.0
			Education H	Frequency Table	2	
			Education	of participant		
Valid	Drimorr	Frequer	ncy Percent	t Valid Pe	ercent 6	Cumulative Percent
v and	Middle	95 99	29.6 30.8	29. 30.	8	29.0 60.4
	Matriculatio	n 127	39.6	39.	6	100.0
	Total	321	Immuni:	zation status	.0	
			Frequency	Percent	Valid Percent	Cumulative Percent
Valid	immunization Co	ompleted	293	91.3	91.3	91.3
	immunization No Total	ot completed	28 321	8.7 100.0	8.7 100.0	100.0
			Family partic	ipant's frequen	cy	
			How many men	nbers in your fami	ly	
** 1.1		Frequency	Percent	Valid Percent	Cumulativ	e Percent
Valid	2	59 91	18.4 28.3	18.4 28.3	18.4 46.7	
	more than 4	171	53.3	53.3	100.0	
	Total	321	100.0	100.0		
			Drink	ing water		
		Fraguener	What are source of	of your drinking w	t Cumulation	ve Dercent
Valid	Supply water	263	81.9	81.9	81.9	
	Well	12	3.7	3.7	85.7	
	Total	46 321	14.5	14.5	100.0	
			Sourc	ce income		
		P	What is so	urce of income		
Valid	Government Job	Freque 53	ncy Percen 16.5	t Valid Po 16.5	ercent Cum 16.5	ulative Percent
	Private Job	179	55.8	55.8	72.3	_
	Personal job Total	89 321	27.7 100.0	27.7 100.0	100.	0
	- • • • • •	521	Month	ily income		
			How much yo	ur monthly income	e	
			Frequency	Percent	Valid Percent	Cumulative Percent
Valid	above 20 th	housand	166 125	51.7 38.9	51.7 38 9	51.7 90.7
	above 30 th above 40 th	housand	30	9.3	9.3	100.0
	Total		321	100.0	100.0	

			Food Prefe	rable						
		What	t kind food is	preferable						
		Frequency	Percent	Valid	Percent	Cumulative Percent				
Valid	Vegetables	169	52.6	52.6		52.6				
	Meet	105	32.7	32.7		85.4				
	Pulses	47	14.6	14.6		100.0				
	Total	321	100.0	100.0						
			Drainage sy	vstem						
	What is drainage system in your community									
		Frequency	Percent	Valid	Percent	Cumulative Percent				
Valid	Gattar	89	27.7	27.7		27.7				
	MainHoles	136	42.4	42.4		70.1				
	Open lines	96	29.9	29.9		100.0				
	Total	321	100.0	100.0						
		Disp	oosal garbag	ge system						
		How	do you dispo	se garbage						
		Frequ	uency	Percent	Valid Pere	cent Cumulative Per				
Disp	posed by Committee 69			21.5	21.5	21.5				
Disposed by CDA Disposed by themselves		131		40.8	40.8	62.3				
		121		37.7	37.7	100.0				
100	ai	321		100.0	100.0					
			Water syst	tem						
		Whatking	d of water you	ır family drink	-					
		Frequency	Perce	ent Va	lid Percent	Cumulative Percent				
Valid	Boiled Water	30	9.3	9.3	3	9.3				
	Un Boiled Water	258	80.4	80	.4	89.7				
	Filtered Water	33	10.3	10	.3	100.0				
	Total	321	100.0) 10	0.0					
		H	lealth care s	system						
		What health care	facility prefer	red by you and	d family.					
		Frequency	Perce	nt Va	lid Percent	Cumulative Percent				
Valid	Govt Hospital	215	67.0	67.	0	67.0				
	Private Hospital	81	25.2	25.	2	92.2				
	Self-medication	25	7.8	7.8		100.0				
	Total	321	100.0	100	0.0					

Data analysis in Frequencies

Participant Frequency Table: This study shows knowledge level of community people about contaminated water. There was high percentage of water borne diseases includes hepatitis cases 58.2%, Typhoid cases 63.6%, Diarrhea 62.3% cases. There was low sanitation system and water quality for drinking worsens. 40% of hospital in Pakistan is treating According to the United Nations International Strategy for Disaster Fund, persons who are suffering from water-borne illnesses (UNICEF). Cholera, typhoid, diarrhea, liver disease (Hepatitis), as well as stomach bacterial infections account for around 80% of all illness and account for 33% of all deaths (World Health Organization, 2020). Educating mothers about importance of ORS and early diarrheal treatment are beneficial for their children health. In our analysis to the question, if people suffering from diarrhea (27.3%) were using ORS, (63.6%) went to hospital for treatment. (54.5%) were taking ORS, (31.8%) people prepare ORS at home. So our community is aware of the importance of ORS this positive attitude can improve their health status (Murtaza et al., 2021). Improved water supply and proper disposal can have a significant impact on decreasing morbidity and mortality from water-borne illnesses (Cairneross and Valdmanis, 2006). Same like in Mohala Nori Bagh Bari Imam.

Conclusion

The residents of Bari Imam had satisfactory knowledge about unsafe water, sanitation and water-borne diseases. Poor drinking water quality is said to be responsible for 30% of all illnesses and 40% of all fatalities in Pakistan. Diarrhea is a gastrointestinal illness that is the primary cause of mortality in Pakistani newborns & children. (Cha *et al.*, 2017). It was observed in our survey that people were sharing bathroom which is also a cause of poor water sanitation which leads to many diarrheal diseases. According to World Health Organization (WHO) contaminated water uses is currently responsible for high rated risk of water borne diseases.

Other measures like treating diarrhea with ORS and taking diarrheal treatment timely can be educated to the mother. Improving hand washing and adequate waste disposal of human waste, and for improving microbiological quality of drinking water by boiling water and storage of post boiling water which can be affected by improper handling was educated to the community to reduce their health problem.

Strength and Limitation

People of the Bari Imam were cooperative, active listener and they have learning enthusiasm. Most of the people in community have lack of knowledge; moreover, illiteracy was the common problem in all. Due to the back ward area they do not have any specific health services in spite people have enthusiasm. People want to get knowledge but low economic status is the giant hinderers. Political influence, illegal residence with limited resources were another big issues for our project implementation. The questions were spot-on, short, and properly structured to get maximum information from the respondents. In these exceptional times, people were reluctant to engaging in such activities. Many people refused to answer and participate as they were not willing to collaborate due to frequently visited by Shifa College of Nursing student, because of their need were not fulfilled. "This article recognized a gap in assessment of nutrition practices which is a major factor compared to the many outcomes undertaken specifically diarrheal problem and should therefore be given more attention in future research". "The effective feedback of an education component in the intervention on the uptake and adherence to hygiene practices should be notice in future research".

Recommendations: According on the findings of the study, immediate action is advised to guarantee the city's citizens have access to safe drinking water (Amin *et al.*, 2019).

REFERENCES

- Ahmed, W., Miankhel, B., Kanaganathan, R. and Villeminot, N. 2015. Access to emergency sanitation for Pakistani women: a case study in Khyber Pakhtunkhwa, Pakistan.
- Amin, R., Zaidi, M. B., Bashir, S., Khanani, R., Nawaz, R., Ali, S. and Khan, S. 2019. Microbial contamination levels in the drinking water and associated health risks in Karachi, Pakistan. *Journal of Water, Sanitation and Hygiene for Development*, 9(2), 319-328.

- Cairneross, S. and Valdmanis, V. 2006. Water supply, sanitation and hygiene promotion (chapter 41).
- Daud, M. K., Nafees, M., Ali, S., Rizwan, M., Bajwa, R. A., Shakoor, M. B. and Zhu, S. J. 2017. Drinking water quality status and contamination in Pakistan. *BioMed research international*, 2017.
- Edition, F. 2011. Guidelines for drinking-water quality. WHO chronicle, 38(4), 104-108
- Grunwald, A. 2016. Water ethics-orientation for water conflicts as part of inter-and transdisciplinary deliberation. In Society-Water-Technology (pp. 11-29). Springer, Cham.
- Leclerc, H., Schwartzbrod, L. and Dei-Cas, E. 2002. Microbial agents associated with waterborne diseases. *Critical reviews in microbiology*, 28(4), 371-409.
- Mohammed, S. and Tamiru, D. 2014. The burden of diarrheal diseases among children under five years of age in Arba Minch District, southern Ethiopia, and associated risk factors: a cross-sectional study. *International scholarly research notices*, 2014.
- Murtaza, F., Muzaffar, M., Mustafa, T. and Anwer, J. 2021. Water and sanitation risk exposure in children under-five in Pakistan. *Journal of Family and Community Medicine*, 28(2), 103.
- Ramlal, P. S., Stenström, T. A., Munien, S., Amoah, I. D., Buckley, C. A. and Sershen, S. 2019. Relationships between shared sanitation facilities and diarrheal and soiltransmitted helminth infections: an analytical review. Journal of Water, Sanitation and Hygiene for Development, 9(2), 198-209
- World Health Organization (WHO), 2020. 1 in 3 people globally do not have access to safe drinking water
