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AWARNESS REGARDING CHOLERA AMONG RESIDENTS OF RURAL COMMUNITY

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ABSTRACT

Introduction: Vibrio cholera is an acute diarrheal disease that results from the ingestion of food or water infected with vibrio cholera bacteria. It can easily be propagate from one to another community. Inadequate sanitation and poor hygiene practices play a role in cholera transmission.

Methods: A quantitative descriptive cross sectional study design was used for this study. Target population of this study was the residents of rural community. Total sample size was 125 participants. Well-developed questionnaire was adopted for data collection. **Results:** All participants familiar with the word Cholera. Highest rate of tested population (84%) agree that a bacterium is cause cholera. (74%) tested population responded that cholera correlated with drinking water and food, these results are significant. Cholera transmission is correlated with

climate 64.8% population agreed. In addition, (68.8%) population agrees with the statement of media play a role in cholera prevention. **Conclusion:** Awareness of cholera among residents of rural community should need to improve. Cholera is preventable as change their habits and behavior. Its transmission can easily preventable. Key Words: Vibrio Cholera, transmission prevention.

INTRODUCTION

Health is one of the most vital conditions of every one life. It is a dynamic concept with multiple meanings that depend on the context and the people who use it. Individuals see health as important to well-being. It depends on how individuals define their own health varies with their own social experience, especially with regard to their age, personal knowledge, and social and disease experiences (Keleher, & MacDougall, 2016).

Vibrio cholera is most crucial and important issues in developing countries. Nevertheless, although the adverse long-term effects of exposure to infectious diseases on human health have been shown by a growing body of research. Exposure to cholera in early childhood seems to have a greater long-term impact on adult height than exposure to late childhood (Ogasawara & Inoue, 2018).

Vibrio cholera is causative agent having a filamentous bacteriophage (CTXΦ) which causes cholera (Haneef & Nazar-ul-Islam). It is an acute diarrheal disease that results from the ingestion of food or water infected with vibrio cholera bacteria (Awofeso & Aldbak, 2018).11%

of the villager population affected by cholera outbreaks due to use contaminated drinking water (Uthappa et al., 2015). Cholera is diarrheal disease can kill both children and adults if left untreated (Bekolo et al., 2016).

Actually, cholera is life threating infection which arises in intestine and cause severe diarrhea, vomiting and rapid dehydration (Mosley, II, Brantley, Locke, & Como, 2017). Quick electrolyte and fluid replacement by oral rehydration solution (ORS) can stop death loss (McCrickard et al., 2017).

Patients with cholera have severe hypovolemia show sunken eyes, cold clammy skin, dry mouth, poor skin turgor, or wrinkled on hands and feet. Patients are commonly lazy and exhausted. Peripheral pulse may be fast, and palpation may become troublesome as blood pressure falls. Due to loss of potassium and calcium muscles cramping and weakness are common. Renal failures occur due to acute tubular necrosis as urine output decreases. Storage of glycogen depletion and insufficient gluconeogenesis can lead to symptoms of severe hypoglycemia or even coma among children (LaRocque & Harris).

Inadequate sanitation system, poor hygiene practices and weather changes due to increased environmental pollution are possible factor of cholera in Pakistan (Naseer & Jamali, 2014).Vibrio cholera can easily spread and propagate in compromised area with increase the ease of trans-border transmission of disease from endemic zones (Lopez et al., 2019). Cholera is not only a problem in developing countries but also a problem in developed ones (Haneef & Nazar-ul-Islam).

Cholera affects populations that are already have health system, lack of infrastructure, and malnutrition (Legros, 2018). In many countries cholera is major health problem. Poor

sanitation and insufficient clean water supply, deficient health literacy and mobilization of community, lack of national plans and cross-border relationships are main factors impeding best control of cholera in endemic countries (Ahmed et al., 2018).

In Kaiso Village, cholera outbreak occurred by the use drinking untreated lake water polluted by human feces washed down during heavy rainfalls. Boiling of drinking water can stop the cholera outbreak (Oguttu, Okullo, Bwire, Nsubuga, & Ario, 2017).

Vibrio cholera is causative agent, found naturally found in equitable environment (Sultana et al., 2018). It is associated with survival and growth in natural environment. Variations in reservoir density may result in alteration of bacterial population in natural environment. Impact of cholera on human population depends on climate and environmental changes. Some pathogens naturally occur in aquatic environment like Vibrio cholera and they threat to public health (Osunla & Okoh, 2017).

Cholera remains a persistent problem with a substantial health and economic burden in a number of South Asian countries. Despite significant efforts, there are a number of challenges facing cholera prevention in Asia. A shortage of Water, sanitation and hygiene WASH interventions has been described as a major barrier to the prevention and control of cholera. The group of experts recommended that some intervenes is helpful for reduction of cholera. (Ahmed et al., 2018).

Early detection can significantly reduce the case-fatality ratio, followed by rapid replacement of fluids and electrolytes. Developments in water systems, sanitation systems and hygiene have effectively abolished transmission of cholera in high-income countries and decreased in some developing countries Hygiene measures in combination with proper

discarding, treatment of sewage system, fresh and safe drinking water supply are most effective in preventing the cholera recurrence (Somboonwit et al., 2017).

Significance:

This study is most vital to determine the awareness of cholera among rural community. It helps to find results and work on its improvement. It is important another way, after completion of this study health education arranged will be arranged to enhance awareness among residents about cholera transmission and prevention. This education session will promote health and prevent cholera disease.

Purposes of the study:

The purpose of this study is to assess the awareness about cholera among the residents of rural community.

MATERIAL AND METHODS

Study Design: A quantitative descriptive cross sectional study design was used.

Study Setting: The setting of the study was community of Ali Raza Abad located on Raiwind road Lahore Punjab, Pakistan.

Target population: Target population of this study was the residents of rural community.

Sampling Technique: A random sampling technique were used in study for data collection.

Data collection Plan:

A well-developed questionnaire was adopted for data collection. The permission was taken from faculty and participants.

Research tool:

Adopted questionnaires were used in this to assess the awareness. The questionnaires consist of 4 parts one demographic data, 2nd general information about cholera, 3rd cholera transmission ways, and 4th were cholera control protection and treatments.

Data analysis:

Statistical analysis of the data was completed with SPSS statistics 21 software.

Time Duration:

Duration of the study was 4 months from (September to December 2019).

Ethical consideration:

All rules and regulation administered by the ethical committee of University of Lahore. All data should be kept confidential. Consent form given to every participants with questionnaires.

RESULTS

Session: 1 demographic data:

The questionnaire was completed and returned by 125 subjects of the study population. Of these, (44.8%) were female and (55.2%) were male. Majority of residents was 30 to 40 year of age with the (56%). Most of residents have other occupation neither medical nor educational with the rate of (75.2%). Mostly people were illiterate with 48.8% and 28% matric level education.

Section: 2 awareness cholera questions with significant level

General information about cholera					
		Agree		Disagree	
		Percentage	Frequency	Percentage	Frequency
1	Cholera is bacterial disease.	84%	105	16%	20
2	Cholera symptoms are known.	48.8%	61	51.2%	64
3	Cholera infects all population.	65.6%	82	34.4%	43
4	Cholera is communicable disease.	33.3%	42	66.4%	83
5	Cholera infects limit gender.	58.4%	73	41.6%	52
6	Cholera infects child more than the other.	47.2%	59	52.8%	66
Cholera transmission ways					
7	Cholera transmission ways are known.	81.6%	102	18.4%	23

8	Cholera transmission is correlated with insects.	64.8%	81	35.2%	44
9	Cholera transmission is correlated with food and drinking.	74.4%	93	25.6%	33
10	Cholera transmission is correlated with habitat.	64.4%	68	45.6%	57
11	Cholera transmission is correlated with climate.	64.8%	81	35.2%	44
12	Cholera transmission can occur from animal to human	40.8%	51	59.2%	74
13	Cholera transmission can occur from mother to son.	60.8%	76	39.2%	49
Cholera control, protection and treatment					
14	Cholera protection is able.	71.2%	89	28.8%	36
15	Cholera treatment is available.	74.4%	93	25.6%	32
16	Cholera control may realized by economy and social status.	64.8%	81	35.2%	44
17	Cholera control may realized by Government.	56%	70	44%	55
18	Cholera control may realized by schools.	57.6%	72	42.4%	53
19	Cholera control may realized by social media.	68.8%	86	31.2%	39

Cholera general population:

Results of this study illustrate that highest rate of residents (84%) agree that bacteria is the cause cholera (16%) residents was not agreed with this statement. (48.8%) rate of population knows about the symptoms of cholera against (51.2%) did know about them. (65.6%) tested population agreed that cholera infected all population but (34.4 %) population disagreed with this statement. More than half of population (66.4%) disagreed with the statement of cholera is communicable disease. In addition, (58.4%) tested population agreed that cholera infects limited gender. Enough awareness level about cholera affect children more than others was (47%).

Cholera transmission ways:

Study results showed that awareness of transmission among tested people was high (81.6%). More than half of tested population 64.8% agreed that insects have role in cholera transmission. (74%) tested population agree that cholera correlated with drinking water and food, these results are significant. (54.4%) tested population was agree that cholera is correlated with habits against (45.6%) of population disagreed with this. Cholera transmission is correlated with climate 64.8% population agreed. In overall, transmission of cholera ways depends on population knowledge about cholera. Low study sample rates (40.8%) agree that animals have significant role in cholera transmission; there is a significant difference between agree and disagree population. More than half of population (60.4%) agrees that cholera can be transmitted from mother to children.

Cholera control, protection and treatment:

Cholera protection is able according to (71.2%) of tested population. Any person can avoid to cholera. Although, (74.4%) of population agree that cholera can be treated with

medicines. More than half of population (64.8%) considered that cholera affected by economic and social status of individual. Median rate (56%) population thought that government have role to control cholera. Schools have role in cholera prevalence as thought by (57.7%) of population. In addition, (68.8%) population agrees with the statement of media play a role in cholera prevention.

DISCUSSION

Rural community residents have significant level of awareness about cholera. Some values are low or at median range but some are at high rate.

In 2010, UNISEF was funded by a project in Haiti to raise awareness of cholera disease. This program involves certain events such as putting up posters to teach people how to protect themselves from cholera infection, distributing purification tablets and general information on cholera disease in public places, radio, television and SMS announcements. The ultimate goal of this initiative is to ensure that households must have at least one person with general information about cholera, know how to prevent cholera, what to do if there is a case of cholera or symptoms in his community (Luquero et al., 2016).

Public awareness of the symptoms of cholera was high (79.9 percent) among Iraqi citizens. This may be due to some government-level activities that were consistent with an article that discussed cholera transmission awareness, symptoms and prevention among high-risk populations (George et al., 2016).

The results of this study relate to low awareness in the trained sample of how cholera is transmitted. High sample frequency (86.3%) assumed that the cholera transmission methods are known to any one (Nayyef et al., 2017).

Knowledge of the bacterial pathogen's interactions between the hosts will help accelerate and quench cholera outbreaks. Another study found that the understanding of hygiene and increased access to chlorinated water had positive results in decreasing cholera (Gazin, Barrais, & Uwineza, 2017).

High percentage (85.8 percent) of the study sample agreed that the transmission of cholera was correlated with insects, but there were no significant differences between them and who disagreed. In fact this result indicates that there is still a need to raise awareness of the role of the insect in cholera transmission (El-Bassiony, Luizzi, Nguyen, Stoffolano Jr, & Purdy, 2016).

Moderate percent (60.5 percent) of the sample tested agree that the transmission of cholera is associated with the duration of infection; despite significant differences to the contrary (Lu et al., 2017).

Cholera is preventable, 90% of tested population agree that with significant differences between them and those who disagree with this problem. Our analysis is a variant on another study that includes multiple programs and methods which explain cholera control (Sun et al., 2017).

High percentage of the population surveyed (77.9 percent) accept that schools with significant differences between them and those who disagree with this problem should carry out cholera control (Mbaabu, Mbindyo, & Abuya, 2017).

High (94.2%) of the population surveyed accept that cholera prevention can be accomplished by increased awareness of social media. Our results are loosely based on the study of the role of social media in cholera control (Ivers, 2017).

CONCLUSION

Awareness of cholera among residents of rural community should need to improve. Cholera is preventable as change their habits and behavior. Its transmission can easily preventable. Social media can play a major role for reduction of cholera.

Limitations:

Duration of study was too short**.** Data collected only from one selected community. Likert scale questionnaires was used in this study.

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