SJ Public Health Africa
Vol. 1 No. 10 (2024): October 2024 Issue
https://doi.org/10.51168/g3fjdr12
Original Article

KNOWLEDGE TOWARDS PREVENTION OF CHOLERA AMONG RESIDENTS OF SEMBULE VILLAGE RUBAGA DIVISION, KAMPALA DISTRICT. A CROSS-SECTIONAL STUDY.

Gloria Nantongo*, Were Amiri.
Kampala School of Health Sciences.

Abstract.

Background.

Cholera is an acute diarrheal infection caused by ingestion of food or water contaminated with the bacterium Vibrio cholera. Uganda is one of the countries where cities are prone to cholera outbreaks. This study assessed the knowledge towards prevention of cholera among residents of Sembule village Rubaga division, Kampala district.

Methodology.

The study employed a cross-sectional study design with a simple random sampling technique. Data was collected from a sample size of 50 respondents using semi-structured questionnaires written in the English language with open and close-ended questions as data collection tools along with observation. Data analysis was done manually using tally sheets, pens, and papers and then entered in a computer program Microsoft Word, presented in tables and figures, and then interpreted.

Study findings.

Most (43%) of the respondents were aged between 18-23 years of age, (64%) of the respondents being female. The study participants unveiled good knowledge about the prevention of cholera because all of the participants had heard of cholera, 64% mentioned poor hygiene and sanitation as the main predisposing factor, 74% knew the cause of cholera was germs,76% knew cholera can spread through eating or drinking contaminated food or water.

Conclusion.

The study participants unveiled good knowledge about the prevention of cholera in view of the fact that all of the participants had heard of cholera and most of them mentioned poor hygiene and sanitation as the main predisposing factor.

Recommendation.

The Ministry of Health together with the local and central government should work hand in hand to promote cholera outbreak prevention and preparedness by implementing more preventive measures against cholera outbreak such as construction of more latrines in the area and ensuring safe water supply.

Keywords: *Knowledge on prevention of cholera, Residents of Sembule village Rubaga, Division, Kampala district.*
Submitted: 2024-03-12 Accepted: 2024-09-27

Corresponding Author: *Gloria Nantongo**
Email: ***nantongogloria@gmail.com***
Kampala School of Health Sciences.

Background.

Cholera is an acute diarrheal infection caused by ingestion of food or water contaminated with the bacterium Vibrio cholera. (WHO, 2022). European Centre for Disease Prevention and Control continues to monitor cholera outbreaks globally through its epidemic intelligence activities to identify significant changes in epidemiology and provide timely updates to public health authorities. However, in 2021, two cases were reported in European Union countries while three and twenty-six cases were reported in 2020 and 2019 respectively. (ECDC, 2023).

Eleven countries in the African region are currently battling one of the worst cholera outbreaks to hit the region in years with approximately 93,681 cumulative cholera cases in Southern and Eastern Africa in 2023. The case fatality rate of Lilongwe, Malawi's capital city as of February 2023 was 5.9%. (UNICEF, 2023).

In the Democratic Republic of Congo, there have been at least 31,342 suspected or confirmed cholera cases in the first seven months of 2023. This compares to 5,120 total cases in all of 2022 with 1,200 of them children under five. (United Nations,2023). Uganda is one of the countries where cities are prone to cholera outbreaks. A

total of 58 cases were confirmed in Kampala city out of the 318 suspected casesand in Mbale city 41 cases were confirmed out of 153 suspected cases. (GodfreyB et al, 2021).

A study carried out on the determinants of knowledge relating to cholera in Wadata-a suburban slum of Makurdi, Benue state, North Central Nigeria revealed that on assessment of attitudes, the majority of the respondents agreed to parameters such as washing both hands using soap after defecation (99.9%), defecating in an open place could lead to disease (99.9%), washing hands before taking food (100%), cholera is a serious problem that can cause death (99%) and cholera is very serious for adults (97.1%) and children (96.3%). (O.G Ogbeyi et al, 2017). This study aimed at assessing the knowledge towards prevention of cholera among residents of Sembule village Rubaga division, Kampala district.

Methodology.

Study design.

The study design used was a cross-sectional study design. The study design was adopted because it was favorable to allow comparison between many different variables at the same time for example age, gender, income, and education level in relation to respondents' opinions of the different questions presented to them.

Study area.

The study was carried out in Sembule village, Kabowa parish, Rubaga division, Kampala district in central Uganda region. The area of study is approximately 6.2km by road South of Kampala the capital and largest city of Uganda. The area covers a population of approximately 4700 people and 780 households.

Study population.

The targeted population for the study were the residents of Sembule village, Rubaga division, Kampala district.

Study tools.

Questionnaires were designed and distributed to the residents of Sembule village, Rubaga division, Kampala district.

Sample size determination.

The sample size was obtained using the formula (1952) as below; S= 2(QR)O Where;
S: Required sample size
Q: Number of days the researcher takes collecting data
R: Maximum number of people per day
O: Maximum time the interviewer spends on each participant Hence;
S=2(5*5)1
=50 respondents
Therefore 50 respondents will be used in my research.

Sampling technique.

The sampling technique used in this study was a simple random sampling technique. The researcher found it convenient to use this technique as it would allow to make generalizations about the population without any bias.

Sampling procedure.

A sampling procedure of convenience sampling was used to select the residents who participated in the research, where both male and female residents were selected.

Data collection methods.

Data was collected solely by the researcher with the help of a trained research assistant.

Data collection tools.

The researcher used questionnaires as tools for data collection.

Data collection procedure.

The data was collected by administering questionnaires that contained semi-structured and close-ended questions written in the English language to the respondents and giving them a reasonable period to give their responses after which the questionnaires were collected. The research was also able to observe the general condition of the community in terms of water and sanitation for the prevention of cholera.

Study variables.

This included dependent and independent variables.

Dependent variable.

Prevention of cholera

Independent variable.

Knowledge of Residents of Sembule village towards prevention of cholera.

Inclusion criteria.

The residents of Sembule that were included in the study were those who were present during the period of data collection and were willing to take part in the research and ready to consent.

Quality control.

Pilot study.

The study tool was pretested in a pilot study that was carried out in the Makindye division among 10 respondents in a day to establish consistency of results. This helped the researcher to make necessary adjustments before the study was carried out in Sembule village. Questions that did not have any value to the study were removed.

Validity of the tool.

The ability of the tool to yield dependable results was tested by interviewing some selected respondents in Sembule village about knowledge attitudes and practices toward the prevention of cholera. This allowed for the correction of unnecessary errors that were in the questionnaire.

Data management.

This included data analysis and data presentation.

Data analysis and presentation.

After data collection, data was manually sorted, edited, and arranged according to the themes based on the specific objectives of the study to generate frequencies and percentages using a scientific calculator. The data was later entered into a computer program, Microsoft Excel to generate figures and tables for easy interpretation of the study findings. Data was presented in tables. Other data was presented in the form of graphs and pie charts.

Ethical considerations.

Ethics are systems of moral values that are concerned with the degree to which the research procedures adhere to professional legal and social obligations to the study participants. Ethical considerations involve an understanding of the ethical code and guidelines for protecting the rights of research participants. A letter of introduction was obtained from the Kampala School of Health Sciences Ethics Committee after approval of the research proposal to the authorities of Sembule village, Rubaga division to obtain permission to carry out the research. When permission was granted, the researcher introduced and explained the study objectives to the participants. A free and informed consent of each respondent was given at the beginning of the study and all information about the individual was treated with utmost confidentiality.

Results.

Sociodemographic data.

Table 1: Shows the distribution of respondents according to demographic data N=50.

Response	Frequency (f)	Percentage (%)
Age		
18-23 years	23	46
24-29 years	15	30
30-35 years	8	16
Above 35 years	4	8
Total	**50**	**100**
Gender		
Male	18	36
Female	32	64
Total	**50**	**100**
Marital status		
Married	15	30
Single	21	42
Separated	14	28
Total	**50**	**100**
Level of education		
No formal education	0	0
Primary	18	36
Secondary	21	42
Tertiary	11	22
Total	**50**	**100**
Religion		

SJ Public Health Africa
Vol. 1 No. 10 (2024): October 2024 Issue
https://doi.org/10.51168/g3fjdr12
Original Article

Catholic	13	26
Muslim	15	30
Protestant	8	16
Others	14	28
Total	**50**	**100**
Occupation		
Unemployed	9	18
Business	21	42
Others	20	40
Total	**50**	**100**

Table 1: shows that, most (43%) of the respondents were aged between 18-23 years of age whereas the least (8%) were aged above 35 years with the majority (64%) of the respondents being female whereas the minority (36%) were male. Regarding marital status, most (42%) of the respondents were single whereas the least (28%) were separated. The study further revealed that most (42%) of the respondents had attained a secondary level of education whereas the least (0%) had no level of education. The findings obtained from the 50 respondents further showed that most(30%) of the respondents were Muslim whereas least (16%) were Protestants. Furthermore, most (42%) of the respondents were business persons whereas the least (18%) were unemployed.

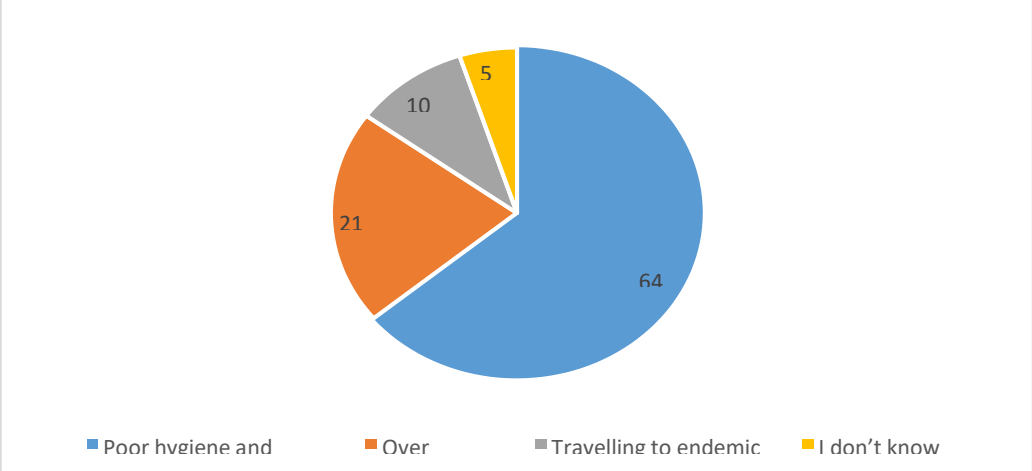
Knowledge towards prevention of cholera among residents of Sembule village.

Table 2: Shows the distribution of the respondents on when they last heard about cholera N=50.

Response	Frequency (f)	Percentage (%)
6 months back	5	10
1-2 years back	9	18
2-3 years back	36	72
Total	**50**	**100**

Table 2: shows that the majority (72%) of the respondents had heard about cholera in the past 2-3years whereas the minority (10%) had heard of cholera in the last 6 months.

Figure 1: Shows the distribution of respondents on what they thought were the main predisposing factors for cholera N=50.



SJ Public Health Africa
Vol. 1 No. 10 (2024): October 2024 Issue
https://doi.org/10.51168/g3fjdr12
Original Article

Figure 1: shows, the majority (64%) of the respondents identified poor hygiene and sanitation as the main predisposing factor for cholera whereas the minority (5%) of the respondents did not know any main predisposing factor for cholera.

Figure 2: Shows the distribution of respondents regarding what they thought was the causative agent of cholera N=50.

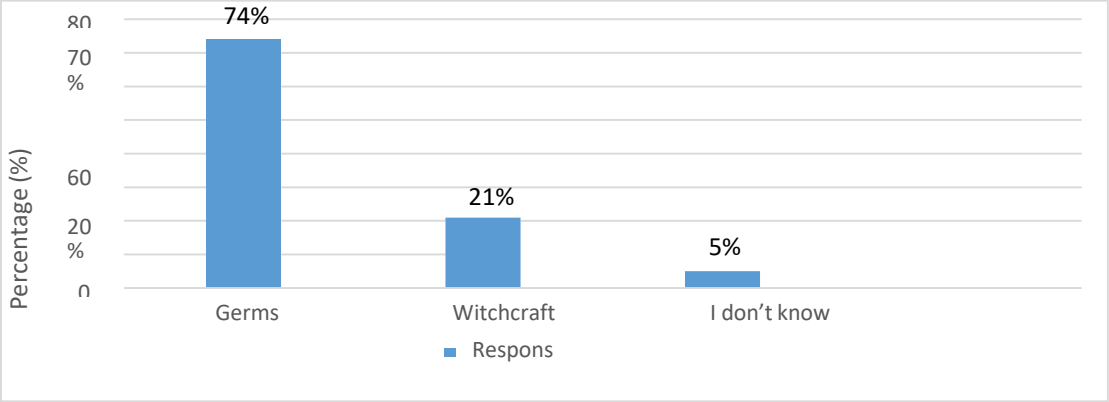


Figure 2: shows that, the majority (74%) of the respondents thought germs were the causative agentof cholera whereas the minority (5%) didn't know the causative agent of cholera.

Table 2: Shows the different ways through which cholera can be spread as mentioned by respondents N=50.

Response	Frequency (f)	Percentage (%)
It is spread through the air	9	18
It can be spread through eating food or drinking water contaminated with cholera germs	38	76
I don't know anyway	3	6
Total	**50**	**100**
Others		
Getting into contact with an infected person	3	30
Eating from local public shared places	2	20
Not washing hands after using the toilet	5	50
Total	**10**	**100**

Table 2: shows that the majority (76%) of the respondents identified eating food or drinking water contaminated with cholera germs as a way through which cholera can be spread whereas the minority (6%) didn't know any ways through which cholera can be spread. Half (50%) of the respondents who knew how cholera was spread also mentioned not washing hands after using the toilet as another way through which cholera can be spread while the least (20%) mentioned eatingfrom local public places.

Table 3: Shows the distribution of respondents according to symptoms of cholera mentioned N=50.

Response	Frequency (f)	Percentage (%)
Watery stools and vomiting	40	80
Leg cramps and muscle aches	4	8
Fever	6	12
Total	**50**	**100**

SJ Public Health Africa
Vol. 1 No. 10 (2024): October 2024 Issue
https://doi.org/10.51168/g3fjdr12
Original Article

Table 3: shows that the majority (80%) of the respondents identified watery stools and vomiting assymptoms of cholera whereas the minority (8%) mentioned leg cramps and muscle aches as symptoms of cholera.

Figure 3: Shows distribution of respondents on whether or not they're familiar with Oral Rehydration Salts or Salt and Sugar water solution N=50.

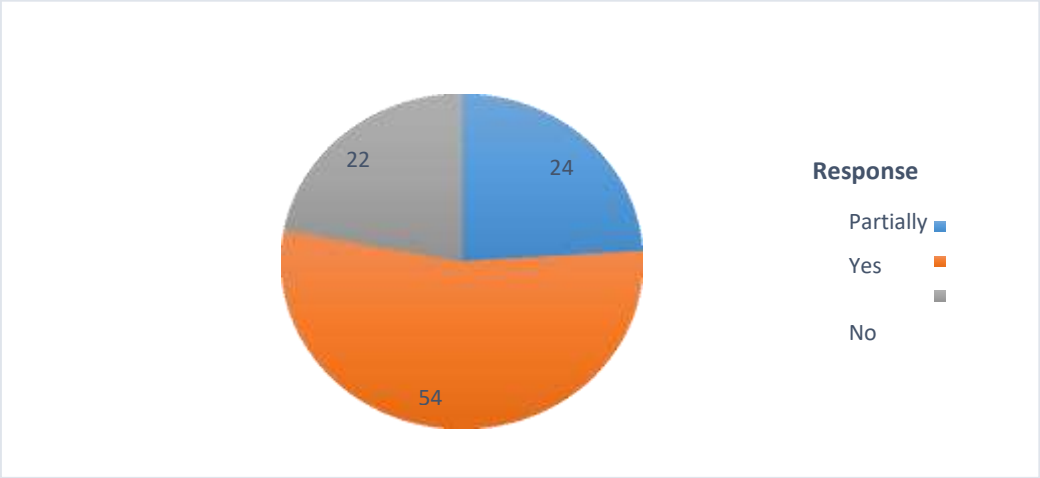


Figure 3: shows that most (54%) of the respondents were familiar with Oral Rehydration Salts or Salt and Sugar water solutions whereas the least (22%) of the respondents were unfamiliar with Oral Rehydration Salts or Sugar water solutions.

Discussion of study findings.

Knowledge towards prevention of cholera among residents of Sembule village.

The study findings obtained from a sample of 50 respondents showed that the majority (72%) of the respondents had heard of cholera. This could be attributed to the fact that there had been a recent outbreak in the area. These current results were in line with Fekri Dureabet al (2021) whose results revealed that (99.4%) of the respondents had heard about cholera. Additionally, the majority of the respondents (64%) identified poor hygiene and sanitation as the main predisposing factors for cholera. This could be a result of routine community sensitization surveys. The results were in line with Eric Otieno Orimbo et al (2020) where (75.9%) of the respondents mentioned poor hygiene and sanitation as a main predisposing factor.

The study further revealed that the majority of the respondents (74%) knew that cholera was caused by germs. This could be as a result that most of the respondents had attained at least a basic level of education. This was in line with a study by Ramadhani H. Nauja et al (2019) where (89.8%) of the respondents identified germs as the causative agent of cholera. The study also showed that the majority (76%) of the respondents knew that cholera could be spread through eating food or drinking water contaminated with cholera germs. This could be attributed to the fact that the majority of the respondents had prior knowledge of cholera transmission. This was in line with the study that was done by Eman Merghani et al (2021) where (52.3%) of the participants knew that cholera can be transmitted by contaminated water. The study discovered that the majority of the respondents (80%) mentioned watery stools and vomiting as symptoms of cholera. This could be because they had already been exposed to positive cholera cases in their community from the recent outbreak of cholera. These findings were consistent with a study carried out by Elaine Akpo et al (2021) where the majority of the respondents 81.04% and 84.83% knew that the main symptoms of cholera were vomiting and diarrhea respectively.

Furthermore, more than half (54%) of the respondents were familiar with ORS or Salt and Sugar water Solutions. This could be attributed to the presence of clinics and drug shops in the area with health workers who can educate the residents on the importance of ORS. This was in agreement with O.G Ogbeyi et al (2017) where (89%) of the respondents were aware of ORS.

Conclusion.

The study established that the participants unveiled good knowledge about the prevention of cholera because all of the participants had heard of cholera, most

participants mentioned poor hygiene and sanitation as a main predisposing factor and some knew that the cause of cholera was germs, most knew cholera can spread through eating or drinking contaminated food or water and others identified watery stools and vomiting as main symptoms and were familiar with ORS.

Study limitations.

Financial constraints during the course of the research in gathering information from the internet, drafting questionnaires, typing, and printing the work.

Poor weather conditions interrupted the data collection schedule due to heavy rains and yet the study area was swampy.

Some respondents were reluctant to fill in the questions which delayed the completion of the work.

Recommendations.

The Ministry of Health together with the local and central government should work hand in hand to promote cholera outbreak prevention and preparedness by implementing more preventive measures against cholera outbreaks such as the construction of more latrines in the area, ensuring safe water supply and also more protection of the naturally available water sources.

Acknowledgment.

I thank the Almighty God for seeing me through all this work from the beginning to the end. I extend my sincere appreciation to the different individuals I worked with, local leaders, and the community of Sembule Village for their time and support in the completion of my research. May the almighty God bless you all. Special thanks to my supervisor, Mr. Were Amiri who has worked tirelessly with me right from topic selection to accomplishing this research work.

I appreciate the school administration of Kampala School of Health Sciences for the support and guidance they provided to equip me with the skills and knowledge needed to complete this course. Great thanks to my family especially my mother Mulungi Teddy, my auntie Nankya Margaret, and my sisters Nalukwago Patricia and Nagawa Dorcusfor their economic support and counseling through my academic journey. May God bless you abundantly.

Lastly, I would also like to thank all my friends and classmates who have been there for me throughout this academic journey from the beginning of the course. I heartily appreciate you.

List of Abbreviations and acronyms.

AWD: Acute Watery Diarrhea
CFR: Case Fatality Ratio
FGDs: Focus Group Discussions
IDPs: Internally Displaced Persons
KAP: Knowledge, Attitude, and Practices
KSA: Kingdom of Saudi Arabia
ORS: Oral Rehydration Solutions
PUR: Purifier of Water
UAHEB: Uganda Allied HealthExaminations Board
WHO: World Health Organization.

Source of funding.

The study was not funded.

Conflict of interest.

There is no conflict of interest.

Authors biography.

Gloria Nantongo is a student with a diploma in Clinical Medicine and Community Health at Kampala School of Health Sciences.

Were Amiriis a research supervisor at Kampala School of Health Sciences.

References.

1. Elaine A, Tamegnon VD, Jean-Robert K, Alidehou JA and Honroe SB. (2021). Appraisal of the Knowledge, Attitudes, and Practices of the Populations of Cholerain Benin. Open Journal of Applied Sciences.
2. Orimbo EO, Oyugi E, DulachaD, Obonyo M, Hussein A, Githuku J, Owiny M and Gura Z. (2020). Knowledge attitudes and practices on cholera in an arid county, Kenya,2018: A mixed methods approach. PLOS ONE. UNICEF. (2023). Cholera outbreak in Eastern and Southern Africa. https://doi.org/10.1371/journal.pone.0229437 PMid:32101587 PMCid: PMC7043758
3. WHO. (2022).Cholera
4. Godfrey B, John B.W, Julius S.O, David M, Atek K and Christopher G.O. (2021). Cholera risk cities in Uganda: understanding cases and contacts centered strategy (3CS) for rapid cholera outbreak control. The PanAfrican Medical Journal
5. ECDC. (2023). Cholera worldwide overview
6. Dureab F, Al-Qadasi Y, Nasr H, Al-Zumair M and Al-Mahbashi T. (2021). Knowledge on and preventive practices of cholera in Al-Maweet -Yemen,2018: a cross-sectional study. Journal of Water and Health, 1002-1013. https://doi.org/10.2166/wh.2021.139 PMid:34874906
7. O.G Ogbeyi, T. Bito, G. Anefu and G. Igwe. (2017). Determinants of knowledge, attitude and preventive practices relating to cholera in

Wadata-a suburban slum of Makurdi, Benue state, North Central Nigeria. International Research Journal of Public and Environmental Health,277-282.

8. Ramadhani H.N, Fidelis C.B and RongoL.M.B. (2020). Knowledge, Perceptions, and Practices on Cholera Transmission and Prevention Measures among Heads of Household Members in Kigamboni Municipality, Dar es Salam, Tanzania.International Journal of Research, 28-48. https://doi.org/10.29121/granthaalayah.v7.i11.2020.331
9. United Nations. (2023). DR Congo: Children facing worst cholera outbreak in six years.
10. Eman Merghani Ali, Moawiya Badawi Mohamed, and Mosa Tawhari. (2021). Knowledge attitude and practice study regarding cholera among the people in Jazan City, KSA. Journal of Family Medicine and Primary Care, 712.s https://doi.org/10.4103/jfmpc.jfmpc_965_20 PMid:34041066 PMCid: PMC813839

PUBLISHER DETAILS:

SJC PUBLISHERS COMPANY LIMITED

SJC Publishers Company Limited
TODAY AND TOMORROW

Catergory: Non Government & Non profit Organisation
Contact: +256 775 434 261 (WhatsApp)
Email: info@sjpublisher.org or studentsjournal2020@gmail.com
Website: https://sjpublisher.org
Location: Scholar's Summit Nakigalala, P. O. Box 701432,Entebbe Uganda, East Africa