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Knowledge, Attitude and Practice of Home Management of Diarrhea among Mothers of Under Five in Umuanunu Community, Obinze, Imo State

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Abstract

This study examined the knowledge, attitudes, and practices of mothers of children under five in the Umuanunu community in Obinze, Imo State, with regard to managing diarrhea at home. For this investigation, a descriptive cross-sectional survey design was chosen. Mothers in the study area were randomly given a structured questionnaire that addressed demographic and socioeconomic characteristics, as well as the knowledge, attitude, and practices of mothers of children under five regarding diarrhea. The age range of the ladies in this study, according to the results, was under 20 to 49 years old. At 92.8%, the age group of 20 to 39 had the highest percentage frequency. Sixty-nine percent of the women were married. Of the women, 47.4% had completed secondary education, 53.6% worked for themselves, 47.4% had more than four children, and 37.1% made between N 20,000 and N 50,000 each month. Every participant in the study had heard of diarrhea. 88.7% of the research participants concurred that diarrhea affects children under five years old. 70.1% of respondents disputed that diarrhea in children under five years old can be caused by microorganisms. Participants agreed that consuming tainted food or water can cause diarrhea in children under five, with 91.8% and 74.2% agreeing, respectively. Diarrhea was found to exhibit loose and watery stools, nausea and vomiting, and abdominal aches by 100.0%, 85.6%, and 76.3% of respondents, respectively. 90.7% of survey participants agreed that eating clean, cooked food can prevent diarrhea in children under five, 88.7% agreed that washing hands before eating can prevent diarrhea, and 73.2% agreed that boiling drinking water can prevent diarrhea. The findings of the assessment of mothers' attitudes toward the management and prevention of diarrhea in children under five indicate that 71.1% of mothers believed that washing hands before eating is crucial to preventing diarrhea in children under five, 74.2% believed that giving ORS during diarrhea is also crucial, and 71.8% believed that all children with diarrhea should receive antibiotics. The practice's outcomes demonstrated that 100.0% of the women in this study consistently breastfed their kid and used ORS whenever their child had diarrhea. When their children have diarrhea, 73.2% of mothers always take them to the doctor, with pharmacists being the most popular source of care (60.8%), while 69.1% of mothers give their child antibiotics to treat the diarrhea. But 87.6% of moms don't wash their hands with soap and water before preparing food, and 85.6% of people don't use boiled or filtered drinking water at home. on conclusion, the majority of moms are well-versed on the topic and employ effective strategies for managing diarrhea in children under five at home.

Keywords: knowledge, attitude, practice, diarrhea, mothers obinze.

Introduction

"The passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual)" is the definition of diarrhea. [1]. Like with dysentery, it can be acute or persistent, and blood may be present. Although there are many possible causes of diarrhea, viruses and tainted food are the most common ones. Less frequently, it may indicate the presence of another illness, including irritable bowel syndrome or inflammatory bowel disease. Additional courses cover fecal-oral transmission of bacteria, protozoa, and viruses, including rotavirus, cholera, and typhoid enteritis. Non-infectious conditions like food errors, digestive disorders, and challenges with improper digestion and absorption could potentially be the cause [2].

Between the ages of 6 months and 2 years, when weaning would have started, diarrhea is said to occur more frequently [3]. Malnourished individuals, people with weakened immune systems, and infants younger than six months old who are mixed-fed cow's milk or infant formula are among the other populations at risk for

diarrhea [4]. Due to severe dehydration, loss of calories, and depletion of essential electrolytes (sodium, chloride, potassium, and bicarbonate) from frequent passing of loose, watery stool, pediatric diarrheal illnesses can lead to complications and even death [5]. Additionally, diarrheal illnesses come in second place out of the top five diseases that cause morbidities and deaths in children worldwide [6].

Given their comparatively reduced total body fluid capacity and the symptom's sometimes abrupt onset and rapid progression, severe volume depletion poses a potential risk to a child's life [7]. Thus, it is crucial to act quickly and decisively at home (before visiting a medical center for final treatment), since this could mean the difference between survival and death [8].

Between 1.7 and 2.5 million cases of diarrheal illness are thought to affect children under the age of five each year worldwide [9]. Of these, it is estimated that more than 500,000 children perish each year from acute dehydration—a condition that can be treated and prevented [10].

According to reports, South-East Asia and Africa account for about 78% of these fatalities [11]. Both infectious and non-infectious diarrhea can occur; the former is more common in the generally unsanitary conditions of poor nations [12], where viral agents are the most frequent aetiologic causes [13].

In the battle to avoid diarrhea, the attitudes of mothers and caregivers are crucial because they inspire people to adopt safe, healthful behaviors. The World Health Organization (WHO), the United Nations International Children's Emergency Fund (UNICEF), and the Integrated Management of Childhood Illness have acknowledged and supported the use of home-based therapy in the management of diarrhea in order to lessen the effects of the illness, especially on children [14].

The WHO Guidelines for the management of diarrhea state that antibacterial, anti-amoebic, and anti-diarrhoea medications have minimal effects. Community health education is crucial for efficient case management because it can build positive relationships between the community and health services, enabling families to recognize warning signs of diarrhea in children and to support timely and appropriate case-seeking behaviors. Prevalent knowledge, attitudes, and practices (KAP) of the community must be accurately understood in order to deliver effective health education. Therefore, for the control efforts to be implemented successfully, pertinent information regarding the KAP of mothers regarding diarrhea must be obtained [15].

Children whose mothers are illiterate have a higher rate of diarrhea than children whose mothers have completed some elementary school. It was also discovered that, particularly in rural areas, younger moms (15–19 years old) knew less about oral rehydration solution (ORS) than their older counterparts [16]. Mothers' knowledge of health, illness, and preventative services serves as a gauge for the advancement of the family, the community, and the nation. Ignorance can result in inappropriate use of the health services that the community has to provide. Adopting healthy behaviors by the mother can improve the living conditions and reduce the morbidity and death of children under five. Since children cannot perform their own daily activities, there is a correlation between the knowledge of mothers and the health of their children. Since mothers are the major caregivers for their children, it is crucial that they understand the causes, signs, and symptoms of diarrhea as well as how to avoid and control it to reduce the morbidity and mortality associated with it [17].

In impoverished nations, diarrhea is the most common pediatric illness and the leading cause of mortality for children under five [18]. Furthermore, diarrheal illnesses put underdeveloped nations' economies in grave jeopardy. Loss of vital minerals and water is the primary cause of death from acute diarrhea; however, an oral rehydration solution (ORS) may usually be used to make up for this.

The body may get dehydrated and lose essential minerals and water due to diarrhea, which can linger for several days. The majority of cases of diarrheal deaths are really caused by substantial fluid loss and dehydration [19]. Mothers' inadequate approaches to managing diarrhea in children under five at home have been noted. In nations with little resources, malnutrition, stunting, dehydration, and impaired cognitive development are only a few of the many negative effects of mothers' poor home care of diarrhea [20]. Furthermore, poor maternal behavior is linked to higher hospitalization rates, higher treatment costs, and higher rates of morbidity and mortality in children [21].

Research have demonstrated that mothers' lack of information prevents them from acting appropriately and promptly, which contributes to poor practices on the home treatment of diarrhea in children under five.

In order to lower the morbidities and fatalities associated with diarrhea, mothers' knowledge about managing diarrhea at home in children under five years old is crucial [22]. Studies also showed that, in addition to moms' lack of awareness, mothers' sociodemographic traits are linked to moms' poor practices and lack of understanding about diarrheal home management for children under five. [23]

Nigeria has made significant efforts to improve mothers' understanding of and ability to treat diarrhea at home; yet, the country's rates of diarrheal illness and death among children under five remain high. The need for this study stems from the lack of research on mothers' habits and knowledge of diarrheal home management in Imo State, Nigeria.

Materials and Methods:

Study design

This study was conducted in Umuanunu autonomous community in Obinze, Owerri West Local Government Area. Obinze is a community in southeastern Nigeria, located near the city of Owerri, Imo State. A peaceful community under the supervision of Owerri West Local Government Area. The community Obinze had six clans/villages but a clan known as Umuanunu got their own autonomous community and pulled out. A community known for its high fast rise in industrialization due to its location along Owerri-Port-harcourt Road, giving hosts/non-indigents access to the Local government area, State capital and neighbouring state such as Abia State, Anambra state and Rivers State. Obinze shares boundaries with Oforola, Avu, Ihiagwa, Eziobodo, Umuokani, Nekede and Mbirichi etc.

Study population

The study population of this study included all mothers from Umuanunu autonomous community in Obinze with under-fives children and whose children have ever suffered from diarrhea during the past six months as of the time of this study.

Inclusion and Exclusion criteria

Study population included all mothers between 18 years and above, able to read and to write, and those whose children have ever suffered from diarrhea during the past six months. And also, the families included in home visiting were the one with a child under-five year. Mothers below 15 years and mothers without a child under-five years were excluded.

Sampling size determination

This was done by using a sample size determination table by Morgan and Krejcie (2012). The minimum sample size is 152. The Confidence Level = 95%, and Margin of Error = 5%. Therefore, to cater for the non-respondents the researcher will increase the sample size by calculation using margin error. That is $5/100 \times 152 = 7.6$ which is 8 respondents. So, the researcher used a sample size of 160 respondents. However due to the limited time and funding 100 mothers were interviewed.

Sampling technique

The study used a probability sampling method specifically simple random sample without replacement in order to gain sample of mothers who participated in the study and to avoid the strange assumption of one person being tallied as two or more. A simple random sample means that all combinations of sampling units with the specified sample size have an equal and independent chance of being selected. A simple random sample without replacement means that once an individual is sampled, that person is not placed back in the population for re-sampling.

Data collection method

Data collected by interviewing the respondent using structured questionnaires. The questionnaire was developed taking in to consideration the research thematic issues and its easiness to the responding mothers. The questionnaire was constructed as follows: section one about demographic and socio-economic factors; section two on questions knowledge of diarrhea prevention; section three was about knowledge on home-based care and section four was related to attitudes of the respondent on home-based care of diarrhea prevention and section five focused on the practices of the respondent on home-based care of diarrhea prevention. Each questionnaire was indicated by its own code number and the code of the respondents and was filled by the respondents who were able to read and to write. The questionnaire was designed in English.

Validity and reliability

The study constructed validity, which is a measure of the degree to which data obtained from an instrument meaningful and accurately reflects or represents a theoretical concept. The questionnaire and checklist of this study was developed based on different literature and it was reviewed by the supervisor.

The reliability is a measure of the degree to which a research instrument yields consistent result or data after repeated trials. In this research the questionnaire was pretested among 10 mothers with under five children from outside of the study area. The aim of this pre-testing is to check the extent to which questions would be understood by the interviewee and to identify areas for modifications and corrections before actual data collection commenced. Based on this the questionnaire and checklist were improved by making them understandable and using little time to complete without ambiguous answers.

Data analysis procedure

After collection of data using the mentioned instruments, the data was coded then entered into the computer in MS excel format, the researcher screened for data errors. Data were analyzed using SPSS version 22. The data were presented using frequency tables and any graphical forms. Descriptive analysis was computed whereby proportion/percentages and frequency was calculated. Pearson's chi-square test and odds ratio with corresponding 95% confidence interval was computed to establish the association between the dependent variable and independent variables. Variables with a p-value less than 0.05 at bivariate analysis was considered together in multivariable analysis. The level of statistical significance set at p-value < 0.05 and 95%CI without including ORs of one in between was considered significant.

Ethical considerations

Approval letter to allow data collection was obtained from the researcher supervisor and written permission from Umuanunu community head was obtained before the process of data collection. Confidentiality and privacy in the research process were respected. No names of respondents were requested or recorded but each of the respondents was linked to his/her questionnaire by codes. Before participation the researcher described the purpose for this research to respondent.

Results:

4.1 Demographic and Socio-Economic Factors of Respondents

The demographic and socio-economic factors of respondents on the knowledge, attitude and practice of home management of diarrhea among mothers of under five in Umuanunu community, Obinze, Imo State is shown in table 4.1. Age grade of women were ranged below 20 years to 49 years. Age grade 20 – 39 had the highest percentage frequency of 92.8%. More than half of the women were married (65.9%). 47.4% of the women had secondary education, 53.6% were self-employed, 47.4% had more than 4 children and 37.1% had a monthly income with the range of ₦ 20,000 – ₦ 50,000.

Table 4.1: Demographic and socio-economic factors of respondents

Categories	Frequency (n = 97)	Percentage frequency (%)
Age grade		
(a) > 20	5	5.2
(b) 20 – 39	90	92.8
(c) 40 – 49	2	2.1
Marital status		
(a) Single	11	11.3
(b) Married	64	65.9
(c) Divorce	9	9.3
(d) Widowed	13	13.4
Educational level		
(a) No formal education	10	10.3
(b) Primary school	18	18.6
(c) Secondary school	46	47.4
(d) Higher education/university/college	23	23.7
Occupational Status		
(a) Employed	20	20.6
(b) Self-employed	52	53.6
(c) Unemployed	25	25.8
Number of children		
(a) 1-2	13	13.4
(b) 3-4	38	39.2
(c) <4	46	47.4
Monthly income		
(a) >₦ 20,000	15	15.5
(b) ₦ 20,000 – ₦ 50,000	36	37.1
(c) ₦ 60,000 – ₦ 90,000	21	21.6
(d) ₦ 100,000 – ₦ 130,000	7	7.2
(e) <₦ 130,000	0	0.0
(f) I don't want to say	18	18.6

4.2 Knowledge of Mothers Regarding Causes and Prevention of Diarrhea in Under Five Children

The knowledge of mothers regarding causes and prevention of diarrhea in under five children is represented in table 4.2 below. All the study participants have heard about diarrhea. 88.7% of the study group agreed that poor hygiene causes diarrhea among children under-fives years, 61.9% of the study group disagree that food poisoning causes diarrhea among children under-fives years and 70.1% disagreed that Micro-organisms can cause diarrhea among children under-fives years.

However, 91.8% and 74.2% of the participants agrees that under five child can contracts diarrhea through drinking contaminated water and food respectively. 100.0%, 85.6% and 76.3% identified diarrhea to possess signs and symptoms of loose and watery stools, nausea and vomiting and abdominal pains respectively.

Finally, 90.7% of the participants of this study agreed that diarrhea can be prevented among under five children through eating clean and cooked foods, 88.7% agreed that it can be prevented through washing of hands before food, 73.2% agrees that it can be prevented through boiling of drinking water while 87.6% disagreed that it can be prevented through the use of latrine and 80.4% disagrees that it can be prevented through breastfeeding.

Table 4.2: Knowledge of mothers regarding causes and prevention of diarrhea in under five children

Categories	Frequency (n = 97)	Percentage frequency (%)
Have you heard about diarrhea?		
(a) Yes	97	100.0
(b) No	0	0
Diarrhea Is Defined as The Passage of Three or More Loose or Liquid Stools Per Day.		
(a) True	97	100.0
(b) False	0	0
Poor hygiene causes diarrhea among children under-fives years.		
(a) True	86	88.7
(b) False	11	11.3
Food poisoning causes diarrhea among children under-fives years		
(a) True	37	38.1
(b) False	60	61.9
Micro-organisms (bacteria, virus, parasites) cause diarrhea among children under-fives years		
(a) True	29	29.9
(b) False	68	70.1
The under-five child contracts diarrhea through drinking contaminated water		
(a) True	89	91.8
(b) False	8	8.2
The under-five child contracts diarrhea through eating contaminated food		
(a) True	72	74.2
(b) False	25	25.8
The under-five child contracts diarrhea through unhygienic breastfeeding manner		
(a) True	49	50.5
(b) False	48	49.5
The under-five child with diarrhea has abdominal pain		
(a) True	74	76.3
(b) False	23	23.7
The under-five child with diarrhea has nausea and vomiting		
(a) True	83	85.6
(b) False	14	14.4
The under-five child with diarrhea urinates less frequently		
(a) True	62	63.9
(b) False	35	36.1
The under-five child with diarrhea has loose, watery stools		
(a) True	97	100.0
(b) False	0	0
The under-five child with diarrhea has loss of control of bowel movements		
(a) True	87	89.7
(b) False	10	10.3
Diarrhea can be prevented in under-five through the use of latrine		
(a) True	12	12.4
(b) False	85	87.6
Diarrhea can be prevented in under-five through breastfeeding		
(a) True	19	19.6
(b) False	78	80.4
Diarrhea can be prevented in under-five through boiling of drinking water		
(a) True	71	73.2
(b) False	26	26.8
Diarrhea can be prevented in under-five through eating salty foods		
(a) True	39	40.2
(b) False	58	59.8

Diarrhea can be prevented in under-five through eating clean and cooked foods		
(a) True	88	90.7
(b) False	9	9.3
Diarrhea can be prevented in under-five through washing hands before food	86	88.7
(a) True	11	11.3
(b) False		

4.3 Attitude of Mothers regarding Prevention and Management of Diarrhea in Children under ive

Results obtained from the evaluation of the attitude of mothers regarding prevention and management of diarrhea in children under five shows that 71.1% strongly agreed that washing of hands is important before eating food in the prevention of diarrhea in children under five, 74.2% strongly agrees that giving of ORS during diarrhea is also important, 71.8% strongly agreed that the use of antibiotics are needed for all children with diarrhea and 91.8% strongly agrees that giving regular home-made foods along with ORS is important in the management of diarrhea in children under five.

However, 67.0% of the participants disagrees that water intake should be reduced if a child is having diarrhea, 49.5% disagreed that eating of clean food is not important in the prevention of diarrhea in children under five, 48.5 disagreed that the use of sanitary latrine is necessary in the prevention of diarrhea in children under five and 30.9% of the participants were undecided if vaccines should be given to prevent diarrhea

Table 4.3: Attitude of mothers regarding prevention and management of diarrhea in children under five

Categories	Frequency (n = 17)	Percentage frequency (%)
Washing hands is important before eating food in the prevention of diarrhea in children under five		
(a) strongly agreed	69	71.1
(b) agreed	17	17.5
(c) undecided	0	0
(d) disagreed	9	9.3
(e) strongly disagreed	2	2.1
Use of sanitary latrine is necessary in the prevention of diarrhea in children under five		
(a) strongly agreed	9	9.3
(b) agreed	3	3.1
(c) undecided	15	15.5
(d) disagreed	47	48.5
(e) strongly disagreed	23	23.7
Vaccines should be given to prevent diarrhea		
(a) strongly agreed	11	11.3
(b) agreed	27	27.8
(c) undecided	30	30.9
(d) disagreed	18	18.6
(e) strongly disagreed	11	11.3
Eating clean food is not important in the prevention of diarrhea in children under five		
(a) strongly agreed	7	7.2
(b) agreed	2	2.1
(c) undecided	12	12.4
(d) disagreed	48	49.5
(e) strongly disagreed	28	28.9
Giving ORS during diarrhea is important in the management of diarrhea in children under five		
(a) strongly agreed	72	74.2
(b) agreed	25	25.8
(c) undecided	0	0
(d) disagreed	0	0
(e) strongly disagreed	0	0
Antibiotics are needed for all children with diarrhea		
(a) strongly agreed	89	71.8

(b) agreed	7	7.2
(c) undecided	1	1.0
(d) disagreed	0	0
(e) strongly disagreed	0	0
Breastfeeding should be continued during diarrhea		
(a) strongly agreed	31	31.9
(b) agreed	24	24.7
(c) undecided	6	6.2
(d) disagreed	26	26.9
(e) strongly disagreed	10	10.3
Water intake should be reduced if a child is having diarrhea		
(a) strongly agreed	15	15.5
(b) agreed	7	7.2
(c) undecided	0	0
(d) disagreed	65	67.0
(e) strongly disagreed	10	10.3
Give regular home-made foods along with ORS is important in the management of diarrhea in children under five		
(a) strongly agreed	89	91.8
(b) agreed	8	8.2
(c) undecided	0	0
(d) disagreed	0	0
(e) strongly disagreed	0	0

4.4 Practices of Mothers Regarding Diarrhea in Children Under Five

The practices of mothers regarding diarrhea in children under five are shown in table 4.4 below. 81.4% of mothers in this study identified that their child/children have had diarrhea in the last one year. 100.0% agreed to have been using sanitary latrine, always using ORS when their child/children have diarrhea and always breastfeeding their child when he/she has diarrhea. Also, 91.8% of mothers in this study always give their child fluid and water when they have diarrhea, 73.2% always seek medical help for treatment when your children have diarrhea most especially from pharmacist (60.8%) and 69.1% of the mothers use antibiotics to treat your child during diarrhea. However, 85.6% do not use boiled or filtered drinking water in their home and 87.6% of mothers do not wash their hands with soap and water before cooking food.

Table 4.4: Practices of mothers regarding diarrhea in children under five

Categories	Frequency	Percentage frequency
Did your child have diarrhea in the last one year?		
(a) Yes	79	81.4
(b) No	18	18.6
Do you routinely use boiled or filtered drinking water?		
(a) Yes	14	14.4
(b) No	83	85.6
Do you use sanitary latrine?		
(a) Yes	97	100.0
(b) No	0	0
Do you routinely wash your hands with soap and water before cooking food?		
(a) Yes	12	12.3
(b) No	85	87.6
Did you breastfeed your child when he/she had diarrhea (when your baby was still on breastfeeding)?		
(a) Yes	97	100.0
(b) No	0	0.0
When your child has diarrhea, from whom do you seek help for treatment?		
(a) Hospital	26	26.8
(b) Elderly person	12	12.4
(c) Pharmacist	59	60.8
(d) None	0	0

When your baby had diarrhea, did you give more fluids/water?		
(a) Yes	89	91.8
(b) No	8	8.2
When your child had diarrhea, how often you use ORS?		
(a) Always	97	100.0
(b) Sometimes	0	0
(c) Never	0	0
How often do you seek medical help for treatment when your children have diarrhea?		
(a) Always	71	73.2
(b) Sometimes	26	26.8
(c) Never	0	0
How often did you use antibiotics to treat your child during diarrhea?		
(a) Always	67	69.1
(b) Sometimes	30	30.9
(c) Never	0	0

Discussion:

The purpose of this study was to evaluate mothers of children under five in the Umuanunu community in Obinze, Imo State, with regard to their knowledge, attitudes, and practices regarding the management of diarrhea at home.

Out of the 100 shared questionnaires, 98 were recovered for this study, and the age range of the women included in this sample was under 20 to 49 years old. At 92.8%, the age group of 20 to 39 had the highest percentage frequency. Sixty-nine percent of the women were married. Of the women, 47.4% had completed secondary education, 53.6% worked for themselves, 47.4% had more than four children, and 37.1% made between N 20,000 and N 50,000 each month.

Similar findings were found in a survey carried out in Nigeria by [24], who noted that the majority of respondents were married (98.4%) and Christians (85.4%), with secondary education being the greatest degree of education for a greater percentage (42.7%) of the population.

In contrast to the results of this study, [25] found that the majority of mothers (>62%) were not educated, 91% of mothers were from the 16–30 age range, and 93% of mothers were housewives.

The study's findings showed that 100.0% of the participants had heard of diarrhea. Among the study group, 88.7% agreed that poor hygiene is the cause of diarrhea in children under five, 61.9% disagreed that food poisoning is the cause, and 70.1% disputed that microorganism are the cause of diarrhea in children under five. This was comparable to a study conducted in Ethiopia by [26] which indicated that 213 (57.6%) of caregivers believed that diarrhea is caused by poor cleanliness and that the majority of 208 (56.2%) caregivers had acceptable knowledge. In contrast to this study, the study by [27] found that 134 (83.8%) of respondents recognized that microorganisms (bacteria, viruses, and parasites) are the causes of diarrhea in children under the age of five.

Furthermore, 91.8% and 74.2% of participants, respectively, concur that consuming tainted food or water might cause diarrhea in children under five. Diarrhea was found to exhibit loose and watery stools, nausea and vomiting, and abdominal aches by 100.0%, 85.6%, and 76.3% of respondents, respectively. This was consistent with research by [28], which found that 132 respondents, or 82.5%, knew that a kid under five who has diarrhea typically had loose, watery feces, nausea, and vomiting.

In conclusion, 90.7% of study participants agreed that diarrhea in children under five years old can be avoided by eating clean, cooked foods; 88.7% agreed that diarrhea can be avoided by washing hands before eating; 73.2% agreed that diarrhea can be avoided by boiling drinking water; 87.6% disagreed that using a latrine can prevent diarrhea; and 80.4% disagreed that breastfeeding can prevent diarrhea. This demonstrates that most study participants had a basic understanding of how to treat diarrhea in children under five. This is in contrast to a study by [29] which found that only 21.3% of respondents had very high knowledge of diarrheal prevention among children, and nearly half of the respondents (47.3%) had low knowledge.

The findings of the assessment of mothers' attitudes toward the prevention and treatment of diarrhea in children under five indicate that 71.1% of mothers believed that washing hands before eating is crucial to preventing diarrhea in children under five, 74.2% believed that giving ORS during diarrhea is also crucial, 71.8% believed that using antibiotics is necessary for all children with diarrhea, and 91.8% believed that providing regular homemade foods along with ORS is crucial to managing diarrhea in children under five. This was comparable to a prior study by [30]in India, which revealed that the majority of moms (72%) had a good attitude toward using ORS for managing diarrhea at home.

However, 67.0% of participants disagreed that reducing a child's water intake if they are experiencing diarrhea,

49.5% expressed a negative attitude regarding the importance of eating clean food to prevent diarrhea in children under five, 48.5% disagreed that using a sanitary latrine to prevent diarrhea in children under five is necessary, and 30.9% of participants were unsure whether vaccinations should be administered to prevent diarrhea.

In this study, all of the women (100.0%) agreed to use a sanitary latrine, to always use ORS when their kid(ren) had diarrhea, and to always nurse their infant at that time. This was comparable to a study by [31], which found that while 16(10%) of the respondents stopped eating or breastfeeding their children when they had diarrhea, the majority of 144 (90%) of respondents continued to do so. In addition, 91.8% of the mothers in this survey said they always give their children water and fluids when they have diarrhea, 73.2% said they always seek medical attention for their children's diarrhea, preferably from a pharmacist (60.8%), and 69.1% of the mothers said they always treat their children with antibiotics when they have diarrhea. This was comparable to a study conducted in Ethiopia by [32], which found that over 70 (73.2%) caregivers had given their kids homemade ORS during a period of diarrhea. This result is greater than that of the Southern Nigerian study by [33]. This showed that, out of the 157 caregivers, 78 (or 49.7%) gave their kids homemade oral rehydration solution (ORS), and 44 (or 28.0%) administered them various medications, including teething combinations, antibiotics, anti-malarial, and anti-motility agents.

But 87.6% of moms don't wash their hands with soap and water before preparing food, and 85.6% of people don't use boiled or filtered drinking water at home. This was in contrast to research by [34], which found that 60 respondents (37.5%) did not wash their hands with water and soap before preparing meals, while the majority of 100 respondents (62.5%) did. The low results obtained from not using filtered or boiled drinking water at home may be related to the high cost of gas, kerosene, and electricity in the study area.

Conclusion

According to the current study's findings, the majority of moms have clear understanding of and effective methods for managing diarrhea in children under five at home. The mother's money, rank, and age were strongly correlated with the degree of knowledge. The level of practice was substantially connected with age of mother, child’s care taker most frequently. Mothers' knowledge and practices on the at-home treatment of diarrhea in children under five exhibit a strong linear link. In order to effectively promote knowledge and practices for the home management of diarrhea in children under five, health education, particularly for mothers, should be employed.

Reference:

1. Kotloff, K.L. (2017). The burden and etiology of diarrheal illness in developing countries. *Pediatric Clinic*. 64(4):799–814.
2. Assimamaw G.A. and Ashenati, A.S. (2017). Determinants of childhood diarrhea among under five children in Benishangul Gumuz Regional State, North West Ethiopia. *BMC Pediatrics.* 14(1):102.
3. Wolf, J., Prüss-Ustün, A., Cumming, O., Bartram, J., Bonjour, S. and Cairncross, S. (2014). "Assessing the impact of drinking water and sanitation on diarrhoeal disease in low- and middle-income settings: systematic review and meta-regression". *Tropical Medicine and International Health*. 19 (8): 928–942.
4. Becker, S.L., Chatigre, J.K., Gohou, J.P., Coulibaly, J.T., Leuppi, R. and Polman, K. (2015). Combined stool-based multiplex PCR and microscopy for enhanced pathogen detection in patients with persistent diarrhoea and asymptomatic controls from Co^te d’Ivoire. *Clinical Microbiology of Infectious.* 21 (6): 591-e601.
5. Windle, H. J., Kelleher, D. and Crabtree, J. E. (2007). “Childhood Helicobacter pylori Infection and Growth Impairment in Developing Countries: A Vicious Cycle?” *Pediatrics*. 119 (3): e754–e759.
6. Ben-Hamou, A., Peres, Y. and Salez, J. (2014). Weighted sampling without replacement. *Brazilian Journal of Probability and Statistics*. 32(3): 657-669.
7. Black, R.E. (2003). Zinc deficiency, infectious disease and mortality in the developing world. *The Journal of Nutrition*. 133 (5 Suppl 1): 1485S–14859S.
8. Cairncross, S., Hunt, C., Boisson, S., Bostoen, K., Curtis, V., Fung, I.C. and Schmidt, W.P. (2010). Water, sanitation and hygiene for the prevention of diarrhoea. *International Journal of Epidemiology*. 39 Suppl 1 (Suppl 1): 193-205.
9. Brown, J., Cairncross, S. and Ensink, J.H. (2013). Water, sanitation, hygiene and enteric infections in children. *Archives of Disease in Childhood*. 98 (8): CDC (2011). Community Health Worker Training Materials for Cholera Prevention and Control. Wayback Machine. Page 7
10. Chakravarty, I., Bhattacharya, A. and Das, S.K. (2017). Water, sanitation and hygiene: the unfinished agenda in the world health organization south-east Asia region. *WHO South East Asia Journal of Public Health.* 6 (2): 22.
11. Das, J.K., Hadi, Y.B., Salam, R.A., Hoda, M., Lassi, Z.S. and Bhutta, Z.A. (2018). "Fly control to prevent diarrhoea in children". *The Cochrane Database of Systematic Reviews.* 12: CD011654.

12. Delfino Vubil, S.A., Quinto`, L., Ballest´e-Delpierre, C., Nhampossa, T., Kotloff, K. and Levine, M.M. (2018). Clinical features, risk factors, and impact of antibiotic treatment of diarrhoea caused by Shigella in children less than 5 years in Manhiça District, rural Mozambique. *Infectious Drug Resistance*. 11: 2095.
13. Desmennu, A.T., Oluwasanu, M.M., John-Akinola, Y.O., Oladunni, O. and Adebowale, S.A. (2017). Maternal education and diarrhoea among children aged 0-24 months in Nigeria. *African Journal of Reproductive Health.* 21 (3): 27–36.
14. Desta, S., Saju, C.R., Navya, C.J., Joshy, V.M., Jini, M.P. and Radhamani, M.V. (2017). A study on selected behavioral factors of mothers influencing acute diarrhoea in under-five children in a rural part of Kerala, India. *International Journal of Community Medicine and Public Health*. 3(8): 2211-2216.
15. Chhagan, M.K., Van den Broeck, J., Luabeya, K.K., Mpontshane, N. and Bennish, M.L. (2014). "Cost of childhood diarrhoea in rural South Africa: exploring cost-effectiveness of universal zinc supplementation". *Public Health Nutrition.* 17 (9): 2138–2145.
16. El-Chammas, K., Williams, S.E. and Miranda, A. (2017). Disaccharidase deficiencies in children with chronic abdominal pain. *Journal of Parentery Enteral Nutrition*. 41 (3): 463–469.
17. Dipasquale, V., Corica, D., Gramaglia, S.M., Valenti, S. and Romano, C. (2018). Gastrointestinal symptoms in children: primary care and specialist interface. *International Journal of Clinical Practices*. 72 (6): e13093.
18. Giannattasio, A., Guarino, A. and Vecchio, A.L. (2016). Management of children with prolonged diarrhoea. *F1000Research* 5.
19. Ogbo, F.A., Nguyen, H., Naz, S., Agho, K.E. and Page, A. (2018). The association between infant and young child feeding practices and diarrhoea in Tanzanian children. *Tropical Medical Health.* 46 (1), 2.
20. Elimian, K.O., Musah, A., Mezue, S., Oyebanji, O., Yennan, S. and Jinadu, A. (2019). Descriptive epidemiology of cholera outbreak in Nigeria, January–November, 2018: implications for the global roadmap strategy. *BMC Publication on Health.* 19 (1): 1264.
21. Olatona, A.B., Nzefa, L.D. and Nicoline, N.A. (2016). Childhood diarrhea determinants in subSaharan Africa: a cross sectional study of Tiko-Cameroon. *Challenges.* 6(2):229-243.
22. Hien, B.T., Scheutz, F., Cam, P.D., Mølbak, K. and Dalsgaard, A. (2007). Diarrhoeagenic *Escherichia coli* and other causes of childhood diarrhoea: a case control study in children living in a waste water use area in Hanoi, Vietnam. *Journal of Medical Microbiology.* 56(Pt 8): 1086-1096.
23. Williams, P.C. and Berkley, J.A. (2018). Guidelines for the treatment of dysentery (shigellosis): a systematic review of the evidence. *Pediatric International Child Health.* 38 (sup1), S50–S65.
24. Rogers, B.R., Holmes, C.W., Hull, M., Westmoreland, D., Celma, C. and Beard, S. (2019). Persistent norovirus outbreaks in a hospital setting–The role of environmental contamination. *Journal of Infective*. 79 (3): 277–287.
25. Jolaiya Tolu, F., Smith Stella, I. and Coker Akitoye, O. (2016). Knowledge and assessment of parents on diarrhoea and its management in Lagos, Nigeria. *International Journal of Health Science Research*. 6 (7): 138–143.
26. Kapwata, T., Mathee, A., le RouX, W. and Wright, C. (2018). Diarrhoeal disease in relation to possible household risk factors in South African Villages. *International Journal of Environmental Research of Public Health.* 15 (8): 1665.
27. Dairo, M.D., Ibrahim, T.F. and Salawu, A.T. (2017). Prevalence and determinants of diarrhoea among infants in selected primary health centres in Kaduna North Local Government Area, Nigeria. *African Medical Journal*. 28:109.
28. Koyfman, A., Ng, C. and Foran, M.P. (2018). Pediatric Dehydration. e-Med Emergency Medicine. *Available from: http://www.emedicine.medscape.com/article/801012-print*.
29. Ndayisaba, A. (2019). Knowledge and practices of mothers on home management of diarrhea in underfives children at Ruli Health Center in Gakenke District. A dissertation submitted in partial fulfilment of requirements for the degree of master's of science in nursing (pediatric) in directorate of postgraduate studies in the college of medicine and health sciences.
30. Sadasiba, P., Rajesh, K.S. and Narendra, B. (2017). Mother's knowledge, attitude and practice regarding prevention and management of diarrhoea in children in Southern Odisha. *International Journal of Contemporary Pediatrics*. 4(3):966-971.
31. Tarr, G.A., Chui, L., Lee, B.E., Pang, X.L., Ali, S. and Nettel-Aguirre, A. (2018). Performance of stool-testing recommendations for acute gastroenteritis when used to identify children with 9 potential bacterial enteropathogens. *Clinical Infectious Diseases*.
32. Siregar, A.Y., Pitriyan, P. and Walters, D. (2018). The annual cost of not breastfeeding in Indonesia: the economic burden of treating diarrhoea and respiratory disease among children (< 24mo) due to

not breastfeeding according to recommendation. *International Breastfeeding Journal*. 13 (1): 10.

33. Tickell, K.D., Brander, R.L., Atlas, H.E., Pernica, J.M., Walson, J.L. and Pavlinac, P.B. (2017). Identification and management of Shigella infection in children with diarrhoea: a systematic review and meta-analysis. *Lancet Global Health.* 5 (12): e1235–e1248.
34. Wang, J., Sun, H., Qi, L., Shi, X.H., Zhou, Y. and Min, K.Y. (2019). The surveillance of Yersiniosis among children in central area of Beijing from 2011 to 2018. *China Journal of Preventive Medical Journal*. 53 (10): 1027–1031.