

International Journal of Education and Training http://www.injet.upm.edu.my

Impact of Health Education Intervention on Knowledge, Prevention and Management of Diarrhea among Mother of Children Under-five in Rural Areas of Ondo State, Nigeria

Adeleke Olasunkanmi Rowland^{1*}, ²Adegboro Joseph Sunday², Adedayo Oluwaseyi Oye³, Fagboye Racheal Seun⁴, Oseni Ahmed Olamide⁵ & Arajulu Gbenga Abraham⁶ ^{1,2,3,4,5 6} Department of Human Kinetics and Health Education, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria

Corresponding author: olasunkanmi.adeleke@aaua.edu.ng

Received	: March 2025
Accepted	: March 2025
Published	: April 2025

ABSTRACT

Diarrhea is a leading cause of death and morbidity worldwide, and children are particularly susceptible to it. In Nigeria, the prevalence of childhood diarrhea is rising. This study investigated impact of health education intervention on knowledge, prevention and management of diarrhea among mother of children under five years old, in rural areas in Owo Local Government Area (LGA) of Ondo State, Nigeria. The study employed a quasi-experimental design composing of pre-test and post-test design. The sample for this study was 30 respondents. Two instruments were used for the study. Findings shows that health education intervention has significant effects on mean score knowledge of mothers of children under five years in the study area toward diarrhea (pre-test $\bar{x} = 26.3$; post-test $\bar{x} = 39.0$, p< 0.00). The study also further revealed that age (t-value = -43.1, p< 0.00) and level of education (t-value = -43.2 p< 0.00) have significant influence on knowledge of mother about diarrhea in the study area. In conclusion, health education has a significant impact on knowledge, prevention and management of diarrhea among mothers of under five children. It is recommended that government enhance efforts to provide access to clean water and promote immunisation against rotavirus which cause diarrhea.

Key words: Diarrhea, mothers, under-5 children, health education, knowledge, Owo.

INTRODUCTION

Diarrhea is a leading cause of illness and mortality in neonates and young children worldwide. It is typified by the loss of electrolytes and physiological fluids, as well as the passage of more than three watery stools in a 24-hour period. If treatment is not received, this can lead to dehydration and death (Yusuf et al, 2022). Diarrhea is a serious global public health issue, as it claims the lives of almost 1.3 million children annually (Mokomane et al., 2018; Uchendu et al., 2011). It is well recognized by the World Health Organization (WHO) as the second leading cause of childhood disease and death in many developing countries, including Nigeria (WHO, 2022). Diarrhea is one of the main causes of morbidity in young children in developing and low-income countries. According to Efunshile et al. (2017), children under five in sub-Saharan Africa experience a median of five episodes of diarrhea per year, with the highest prevalence occurring in those aged six to twenty-three months.

Children in this age range are particularly vulnerable to the incidence and mortality from diarrhea illnesses, particularly during infancy, and acute diarrhea is the second leading cause of death in this age group globally (after pneumonia). Following that, rates progressively drop. The bulk of diarrhea deaths in South Asia and sub-Saharan Africa occur in children younger than five. Despite this

hefty toll, progress is being made. Between 2000 and 2021, the number of children under five who died from diarrhea decreased by 63%, according to Inter-agency Group for Child Mortality Estimation (IGME) (2023). Simple steps could save a lot more children.

Nigeria is one of the top five countries with 0.9 million under-5 deaths in 2019 (IGME, 2023). Over 70,000 children in Nigeria under the age of five die from waterborne illnesses like diarrhea each year as a result of inadequate sanitation facilities and the usage of contaminated drinking water (IGME, 2023). Due to a lack of access to adequate water, sanitation, and hygiene (WASH), the poorest children are disproportionately affected by diarrhea and enteric diseases (IGME, 2023). The Sustainable Development Goals (SDGs), which aim to reduce child mortality to 25 deaths per 1,000 live births or below by 2030, may be in jeopardy if this high diarrhea mortality rate is not addressed (United Nations, 2017). Research undertaken in several regions of Nigeria indicates that each children under five may encounter four to seven bouts of diarrhoea annually (Dairo et al., 2017; Grenov et al., 2019; Onyearugha et al., 2020).

Malnutrition, stunted growth, and delayed cognitive development in nations with low resources are additional direct effects of diarrhea in children. Mothers' basic understanding of diarrhea is influenced by a number of factors, including their ethnicity, level of education, and past experience treating the illness. In southwest Nigeria, the risk factors for diarrhea in children under five have also been evaluated. Childhood diarrhea was significantly predicted by mother education, employment, religion, and family wealth in southwest Nigeria (Ugboko et al., 2021). This was in good accord with Mesagan and Adeniji-Ilori (2018), who pointed out that low socioeconomic status in Southwest Nigeria hinders the health of children under five. Furthermore, the Momoh et al. (2022) study discovered a substantial correlation between mothers' good practices regarding diarrhea and their age, occupation, income, education level, and ethnicity. According to a study by Ndayisaba et al. (2022), mothers' age and their degree of knowledge about how to manage diarrhea in children under five at home were substantially correlated at selected primary health care center in Rwanda. The low educational attainment of the parents is one factor causing the high prevalence of diarrhea in Nigerian children under five (Evurani, 2022; Okorie 2024; Mariyam et al (2025). Additionally, Bogale et al. (2017) found that the practice of caretakers in Ethiopia was substantially correlated with the mother's marital status and educational attainment.

According to Thiam et al. (2017), the majority of diarrhea-related illnesses and fatalities occur in low- and medium-income countries, usually in rural areas as well as urban slums and suburbs. These conditions are exacerbated by poverty, ignorance, endemic and infectious diseases, and malnutrition. Problems that are directly or indirectly related to socio-environmental factors, such as inadequate breastfeeding, zinc deficiency, poor sanitation and water quality, unsanitary feeding practices (including hand hygiene), and barriers to accessing appropriate and affordable healthcare, undoubtedly contribute to the burden of diarrhea disease among children under five in these parts of the world (Thiam et al., 2017; WHO, 2020). There is evidence that during the past 20 years, diarrhea mortality has significantly decreased worldwide (Thiam et al., 2017). Conversely, diarrhea morbidity and death rates in sub-Saharan Africa continue to be unacceptable (Omole et al., 2019).

In order to prevent diarrhea disease, one must have adequate knowledge and a thorough understanding of the underlying etiological factors and dynamics that contribute to its beginning and development to a variety of serious consequences, complications, and fatalities (Omole et al., 2019). One of the most important aspects of preventing diarrhea and its sequel, according to the WHO, is health education about the transmission of diarrhea illnesses (WHO, 2020). This relates to making sure that community-level health workers and caregivers have access to sufficient and pertinent information about the illness. It has been acknowledged that having the appropriate information can improve children survival tactics (Dairo, 2017). In the majority of sociocultural circumstances, particularly in developing nations, mothers continue to be the traditional, conventional, and biological primary (or first line) caregivers of young infants. For the disease's burden among children under five to continue to reduce, this group of stakeholders in society must have enough awareness about it.

Mothers play an important role in both preventing and treating diarrhea, and their knowledge, attitudes, and behaviors affect the quality of care they give for their children's survival and development. Mothers' awareness of health, disease, and preventative care also acts as a barometer for the progress of the family, the society, and the country. Mothers who receive a decent education may have a significant influence on health awareness and responsibilities in addition to their vital role in raising children and their families. By adopting healthy practices that enhance their quality of life, mothers can

lower the illness and mortality rate of children under five. Health education is the main priority in primary care. As Mokonnen et al. (2018) defined, it is "any combination of learning experiences designed to lead to a situation where people know how to attain health, do what they can individually and collectively to maintain health, and seek help when needed".

As the children's primary caregivers, mothers have a critical role in lowering the morbidity and death rates associated with diarrhea illnesses (Desta et al., 2017). Mothers' lack of knowledge leads to poor home management of diarrhea, which also keeps them from responding appropriately and promptly. This highlights the necessity of health education since it plays a significant part in enhancing diarrhea management at home and, as a result, child survival (Haroun et al, 2010). The goal of health education is to alter lifestyle and behavior. If focus is placed on health education interventions for women, particularly those in rural areas, this could result in a notable increase in their understanding of how to treat diarrhea at home. According to research, mothers' understanding of how to manage diarrhea illness at home was greatly enhanced by a health education intervention (Mesiobi-Anene et al., 2023). According to Emea and Lawal's (2023) research, mothers' understanding, attitudes, and practices about the management of diarrhea at home were successfully improved by a health education intervention. Previous studies have shown that after educational intervention, knowledge can increase (Mohapatra et al., 2019; Pasi et al., 2021). This data supports those findings.

In order to support the development of health policies that will help control diarrhea illness in children under five, this study is essential. In rural areas in Owo local government area (LGA) of Ondo State, Nigeria, high levels of severe dehydration and limited educational intervention are caused by mothers' misperceptions, inadequate knowledge, and misguided approaches to treatment and prevention. Therefore, this study will look into how a health education intervention affects the prevention of diarrhea among mothers of children under five in in Owo local government area (LGA) of Ondo State, Nigeria.

Aim of the Study

This study's objective was to evaluate the impact of health education intervention on knowledge, prevention and management of diarrhea among mother of children under five years old, in rural areas in Owo local government area (LGA) of Ondo State, Nigeria.

Research Objectives

The following research objectives were raised to guide the study:

- i. Examine the level of knowledge of mothers of children under five years old regarding diarrhea in in rural areas in Owo local Government Area of Ondo State, Nigeria.
- ii. Determine if health education intervention will have significant impact on knowledge of diarrhea in rural areas in study area.
- iii. Determine if age will have any significant influence on knowledge of mother about diarrhea in the study area.
- iv. Ascertain if level of education will have any significant influence on knowledge of mother about diarrhea in the study area.

METHODOLOGY

The study employed a quasi-experimental design composing of pre-test and post-test to evaluate the effect of health education intervention on diarrhea prevention and management among mothers of Under-5 Children in rural areas of Owo Local Government of Ondo State. The population included all mothers of children under-five years who lives in rural communities in Owo. The sample for this study was 30 respondents. The multi-stage sampling procedure was used to select mothers of under-5 children rural communities in Owo Local Government. A simple random sampling technique was used to select two rural communities in the study area. In each of the community, mothers of under-five years old children were selected using random sampling by making use of wrapped papers where there was 30 yes and several no's; those who picked yes were included in the study. Two instruments were used for the study. A self-structured validated and close ended questionnaire and a prepared lecture note which served as the treatment package, was used to collect data. The items were structured on a modified 4-point scale as: Strongly agreed (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) respectively.

When a statement is positively framed the rating was SA=4, A=3, D=2, SD=1. This was reversed for a negatively framed statement.

The drafted questionnaire was subjected to rectification and in-depth scrutiny by experts in the Department of Health Education, Adekunle Ajasin University, Akungba Akoko. This ensured the face and content validity of the questionnaire items constructed. The certified and corrected instrument was further subjected to a test-retest method of reliability. Ten (10) respondents were selected from a similar community for the pilot test and the instrument was administered twice within two-weeks interval. The two results were analysed using Pearson Product Moment Correlation Coefficient method and the instrument was considered reliable; the coefficient was 0.69. With the assistance of two qualified research assistants, the data collection exercise was conducted using the instrument created for the study. The procedure was in two (2) phases: pre-test and post-test. Pretest was collected from 30 mothers of under-5 children. The training sections was anchored by the researcher. The training took 120 minutes per section for six weeks. After intervention, posttest was administered and collected for analysis. The data obtained were screened, entered and coded using IBM Statistical package for social sciences (SPSS). Descriptive statistics (means, standard deviation standard error) and inferential statistics (paired t-test) were used to test hypotheses at 0.05 significant level.

RESULTS

Table 1 below revealed that 6 (20.0%) of the respondents were in the range of 15-25 years, 14 (46.7%) were between the age of 26 - 35 years, 9 (30.0%) were between the age of 36-45 years, while 1 (3.3%) were between the age of 46-55 years. This further revealed 14 (46.7%) of the respondents had Senior Secondary School Certificate (SSCE) Education, 8 (26.7%) had Nation Diploma/ Nigerian Certificate in Education (ND/NCE), while 8 (26.7) had Degree Education (DEGREE). Finally, it was revealed that 4 (13.3%) of the respondents were single, 20 (66.7%) were married, while 6 (20.0%) were divorces.

		Frequency	Percent
Age	15-25years	6	2.0
-	26-35years	14	46.7
	36-45years	9	30.0
	46-55years	1	3.3
	Total	30	100.0
Level of education	SSCE	14	46.7
	ND/NCE	8	26.7
	DEGREE	8	26.7
	Total	30	100.0
Marital Status	Single	4	13.0
	Married	20	66.7
	Divorce	6	20.0
	Total	30	100.0

Table 1.	Frequency	distribution	showing	demographics	variable of the	e respondents

Table 2 below revealed the result of knowledge of mothers of children under five years old regarding diarrhea in rural communities before the intervention as pre-test, where 20.00 was the minimum score, while 32.00 was the maximum score, the constant mean of the instrument (questionnaire) was $(3 \times 10=30)$ and the score mean shows 26.3000. Therefore, the mothers of children under five years old in rural Communities have low knowledge toward diarrhea.

 Table 2. Frequency distribution of mothers of children under five years old regarding diarrhea

Pre-test knowledge	Ν	Minimum	Maximum	Mean	Std. Deviation	
Experimental group	30	20.00	32.00	26.3000	3.06425	

Table 3 below revealed the effect of health education on knowledge of diarrhea in the study area. The analysis revealed 12.13333 as the mean difference of post-test of knowledge of

mothers on diarrhea in the study area which is significant (.000). Hence, the result shows that the treatment "prevention and management of diarrhea diseases" respectively has significant effects on knowledge of mothers of children under five years old in the study area toward diarrhea.

Paired Samples Statistics							
	Mean	N	Std. Deviation	Std. Error Mean			
Pre-test	26.3	30	3.1	.7			
Post-test	39.0	30	4.4	1.1			

Table 3. Mean	difference score	of knowledge	of mothers on	diarrhea in rural	communities
I able 5. Miculi		of knowledge	or mouners on	diaminea in rurai	communities

Table 4 below revealed t-test analysis of influence of age on knowledge of mothers about diarrhea, the result revealed a t-value of -43.05 which is significant (p = .000). Hence, it is revealed that age have a significant influence on knowledge of mothers about diarrhea in the study area toward diarrhea.

Table 4. T-test analysis of the influence of age on knowledge of mother about diarrhea

Paired Samples Test								
	Mean Std. Deviation	Std. Std. viation Error Mean	95% Confidence Interval of the Difference		Τ	df	sig. (2- tailed)	
			-	Lower	Upper			
Age –Knowledge	-24.13	3.07	.56	-25.28	-22.99	-43.05	29	.000

Table 5 below revealed t-test analysis of influence of level of education on knowledge of mother about diarrhea, the result revealed a t-value of -43.23, which is significant (p = .000). Hence, the study shows that level of education has a significant on knowledge of mother about diarrhea rural areas of Owo Local Government of Ondo State toward diarrhea.

		Paired Samples Test							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		td. 95% Confidence T rror Interval of the lean Difference		df	sig.(2- tailed)
			-	Lower	Upper	•			
Level of Education –Knowledge	-24.50	3.10	.57	-25.66	-23.34	-43.23	29	.000	

Table 5. T-test analysis of the influence of level of education on knowledge of mother about diarrhea

DISCUSSION

The results of the investigation showed that health education intervention has significant difference on knowledge of mothers of children under five years old in rural areas of Owo Local Government Area of Ondo State have low knowledge toward diarrhea. This finding is consistent with that of Mesiobi-Anene et al. (2023), who found that a health education intervention significantly improved mothers' understanding of how to treat diarrhea disease at home. Additionally, it is in line with the findings of Emea and Lawal's (2023) study, which found that mothers' awareness, attitudes, and practices about the management of diarrhea at home were improved by a health education intervention. This is supported by research of Mohapatra et al., (2019) and Pasi et al., (2021) which concluded that education interventions increase mothers' awareness of diarrhea. The study also supported by Bayomy et al.

(2024), who confirmed community-based interventions and education programs to increase mothers' awareness and encourage healthy behavioral habits regarding diarrhea in children.

This study further indicated that age has significant influence on knowledge of mothers about diarrhea in the study area. This finding agrees with the result of Momoh et al. (2022) which reported that mothers' good practices regarding diarrhea are significantly correlated with age, occupation, income, education level, and ethnicity. Also the study supported the findings of Ndayisaba et al. (2022), who found a strong relationship between the mother's age and her level of awareness regarding diarrhea.

This study also revealed that level of education has significant influence on knowledge of mother about diarrhea. The finding aligns with earlier research showing that low parental education is one cause for diarrhea to be so common in Nigerian children under five (Evurani, 2022; Okorie, 2024). The study's findings are consistent with those of Mariyam et al. (2025), who found that mothers' educational backgrounds significantly impact their understanding of diarrhea.

CONCLUSION

In conclusion, this study concluded that health education has significant impact on knowledge prevention and management of diarrhea among mothers of under five children in rural areas of Owo local government area of Ondo State, Nigeria. It also revealed that age and level of education have significant influence on knowledge prevention and management of diarrhea among mothers of under five children. Therefore, a woman's ability to accept relevant health promotion and preventative information and attitudes for herself and her children is greatly influenced by her level of health literacy. Insufficient health information hinders a woman's ability to positively impact her own health and that of her family. The government should enhance efforts to provide access to clean water, promote children immunisation against rotavirus and measles, which cause diarrhea, and finance infant health programs in partnership with non-governmental organisations. Also, health professionals can help spread health information by educating the public about ways to prevent childhood diarrhea. These include encouraging mothers to breastfeed exclusively, washing their hands properly with soap, maintaining proper sanitation, and practicing good personal and environmental hygiene. These are all affordable ways to lower the number of children who die from diarrhea.

LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDIES

It was not determined whether respondents practiced personal hygiene or illness prevention measures. Other confounders are clarified by the fact that the study was conducted on a single group (pre-post-test) without a control group. Post-test was conducted six weeks after the health education intervention was completed. Additionally, no questions were asked concerning the respondents' source or sources of information regarding diarrhea illness or other environmental factors that might be causing the issue. Additionally, the sample size was determined without accounting for the potential for non-response, which is another known weakness of this research. Although mothers of children under five have a decent understanding of the disease, these gaps in the study's scope leave room for additional research that could provide the missing parts needed to understand its high prevalence and frequency. Therefore, more research is required to determine the community's level of awareness and management regarding diarrhea among nursing mothers.

REFERENCES

- Bayomy, H. E., Almatrafi, H. M., Alenazi, S. F., Rehab, M. S., Alenezi, M. A., & Alanazi, W. A (2024). Knowledge and behavioral practice of mothers about childhood diarrhea in Arar City, Saudi Arabia. *Cureus*, 16(2), 54221. https://doi.org/10.7759/cureus.54221
- Bogale, K. D., Nega, T. A., & Tesfaye, D. A. (2017). Knowledge, practice, and associated factors of home-based management of diarrhea among caregivers of children attending under-five clinic in Fagita Lekoma District, Awi Zone, Amhara Regional State, Northwest Ethiopia. Nurs Res Practice, 91(3), 555–562. https://doi.org/10.1155/2017/8084548

- Dairo, M. D., Ibrahim, T. F., & Salawu, A. T. (2017). Prevalence and determinants of diarrhea among infants in selected primary health centres in Kaduna North local government area, Nigeria. Pan African Medical Journal, 28, 109
- Desta, B. K., Assimamaw, N. T., & Ashenafi, T. D. (2017). *Knowledge, practice, and associated factors* of home-based management of diarrhea among caregivers of children attending under-five clinic in Fagita Lekoma District, Awi Zone, Amhara Regional State, Northwest Ethiopia.
- Efunshile, A. M., Egwuatu, C. C., Elikwu, C. J., Igwe, D. N., Oduyemi, R. O., Igwenyi, C. N., & Oyobo, L. (2017). Assessment of the knowledge and management of diarrhoea among women in Abakaliki metropolis, Nigeria. *International Journal of Medicine and Biomedical Research*, 6(1), 39-46.
- Emea, M. K., & Lawal S. A. (2023). Effect of health education intervention on diarrhea prevention practices among mothers of under-5 children in Abia State, Nigeria. *International Journal of Public Health, Pharmacy and Pharmacology*, 8(2). 28-43.
- Evurani, S. A., Omo-Omorodion, B. I., Attama, A. A., Ugwu, C. N., & Ibezim, E. C. (2022). Incidence of diarrhoea and predisposing factors among under-five children in Nigeria: Critical review. *Journal of Clinical Cases & Reports*, 8, 11. https://doi.org/10.46619/joccr.2022.5-S8.1048
- Grenov, B., Lanyero, B., & Nabukeera-Barungi, N. (2019). Diarrhea, dehydration, and the associated mortality in children with complicated severe acute malnutrition: A prospective cohort study in Uganda. *Journal of Pediatric*, *210*, 26-33. https://doi:10.1016/j.jpeds.2019.03.014
- Haroun, H. M., Mahfouz, M. S., El Mukhtar, M., & Salah, A. (2010). Assessment of the effect of health education on mothers in Al Maki area, Gezira state, to improve homecare for children under five with diarrhea. *Journal of family and community medicine*, 17(3), 141.
- Inter-agency Group for Child Mortality Estimation. (2023). Levels and trends in child mortality: report 2023.
- Mariyam, M., Arief, Y. S., Makhfudli, M., & Krisnana, I. (2025). Mother's practice on home-based management of diarrhea in age under-five children: A systematic review. *Journal of the Liaquat University of Medical and Health Sciences, 15,* 9-14. https://doi.org/10.22442/JLUMHS.2025.01251
- Mekonnen, G. K., Mengistie, B., Sahilu, G., Mulat, W., & Kloos, H. (2018). Caregivers' knowledge and attitudes about childhood diarrhea among refugee and host communities in Gambella Region, Ethiopia. *Journal Health Population and Nutrition*, 37(1),24. https://doi.org/10.1186/s41043-018-0156-y
- Mesagan, P. E., & Adeniji-Ilori, O. M. (2018). Household environmental factors and childhood morbidity in South-western Nigeria. Fudan Journal of the Humanities and Social Sciences, 11(3), 411-425.
- Mesiobi-Anene, N., Joseph, E. E., Okechukwu, A., Chika, O. D., Peterside, O., & Akinbami, F. O. (2023). Effect of health education on knowledge of home management of diarrhoea amongst caregivers of under-five children in Yenagoa, Nigeria. *Pan African Medical Journal*, 46(46), 1-10. https:/pamj.2023.46.46.40904
- Mohapatra, J., Dehury, P., Dehury, R., & Behera, S. (2019). Educational interventions and its impact on prevention of diarrhea in Urban slums of Khordha, Odisha, India. *Journal of Clinical and Diagnostic*, 13(10), ICO1-ICO6.
- Mokomane, M., Kasvosve, I., Melo, E. D., Pernica, J. M., & Goldfarb, D. M. (2018). The global problem of childhood diarrhoeal diseases: emerging strategies in prevention and management. *Ther Adv Infect Dis*, 5(1), 29-43.
- Momoh, F. E., Olufela, O. E., Adejimi, A. A., Alero, A. R., Esther, O. O., Olayinka, O. A., & Adebayo, T. O. (2022). Mothers' knowledge, attitude and home management of diarrhoea among children under five years old in Lagos, Nigeria. *Afr J Prm Health Care Fam Med*, 14(1), 3119. https://doi.org/10.4102/ phcfm.v14i1.3119
- Ndayisaba, A., Uwizeyimana, A., Tuyisenge, M. J., & Chironda, G. (2022). Knowledge and practices of mothers on home management of diarrhoea in under-fives children at selected primary health care Centre, Rwanda: A descriptive cross-sectional study. *International Journal Africa Nursing Sciences*. https://doi.org/10.1016/j.ijans.2022.100508
- Okorie, I. E., Afuecheta, E., & Nadarajah, S., Bright, A., & Akpanta, A. C. (2024). A Poisson regression approach for assessing morbidity risk and determinants among under five children in Nigeria. *Scientific Reports, 14*, 21580. https://doi.org/10.1038/s41598-024-72373-4

- Omole, V. N., Wamyil-Mshelia, T. M., Aliyu-Zubair, R., Audu, O., Gobir, A. A., & Nwankwo, B. (2019). Knowledge and prevalence of diarrhea disease in a suburban community in north western Nigeria. Sahel Med Journal, 22,114-20.
- Onyearugha, C. N., Okoronkwo, N. C., & Onyemachi, P. E. (2020). Prevalence of diarrhea and its associated risk factors in children aged 1–60 months at Aba, South East Nigeria. *Eastern Journal of Medical Sciences*. https://doi.org/10.32677/EJMS.2020.v05.i02.004
- Pasi, R., Divasha, & Ravi, K. S. (2021). Impact of educational programme regarding ORS therapy on the level of knowledge of mothers aged 18-35 years of under 5-year children. *Journal of Family Medicine and Primary Care*, 10(8), 2834–2838. https://doi.org/10.4103/jfmpc.jfmpc_2403_20
- Thiam, S., Diène, A. N., Fuhrimann, S., Winkler, M. S., Sy, I., & Ndione, J. A. (2017). Prevalence of diarrhoea and risk factors among children under five years old in Mbour, Senegal: A cross-sectional study. *Infect Dis Poverty*, 6, 109.
- Uchendu, U. O., Emodi, I. J., & Ikefuna, A. N. (2011). Prehospital management of diarrhoea among caregivers presenting at a tertiary health institution: Implications for practice and health education. *African Health Sciences*, 1, 41-47.
- Ugboko, H. U., Nwinyi, O. C., Oranusi, S. U., & Fasina, F. F. (2021). Risk factors of diarrhoea among children under five years in southwest Nigeria. *International Journal of Microbiology*, 1-9.
- United Nations Inter-Agency Group for Child Mortality Estimation (IGME) (2023). *Levels and Trends in Child Mortality: Report 2022.* WHO and UNICEF.
- United Nations. (2017). United nations sustainable development-knowledge platform. Retrieved January 10, 2025, from https://sustainabledevelopment.un.org/sdg3
- World Health Organization. (2022). *Diarrhoea disease. http://www.who.int/news-room/fact-sheets/detail/diarrhoeal-disease*
- World Health Organization. (2023). *Diarrhoeal disease: fact sheet*. Retrieved on October 15, 2020 from https://www.who.int/news-roo m/fact-sheets/detail/diarrhoeal-disease
- Yusuf, A. B., Junaidu, A., & Abubakar, M. K. (2022). Assessment of knowledge and usage of oral rehydration therapy in management of childhood diarrhea among mothers of Kambaza town, Kebbi State, Nigeria. Saudi Journal of Biomedical Research, 7(11), 315-21.