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Awareness Among Mothers on the Orlu Local Government Area of the Diarrhea Disease of Under-Five Children and the Public Health Implications

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ABSTRACT: The purpose of the study was to find out how knowledgeable Orlu Local Government Area moms were about the ailment known as diarrhea in children under five.Four hundred and ten moms from five carefully chosen health facilities in the Orlu Local Government Area made up the study's population.396 (or 97%) of them were the respondents who finished the surveys. Data were gathered using a systematic, valid, and reliable (r=0.89) questionnaire. Descriptive statistics such as frequency counts and percentages were used to analyze the data, along with inferential statistics like chi-square. Based on the first through fourth study questions, the findings showed that most respondents (57.8%) had a low level of awareness of the disease that causes diarrhea in children under five, few (22.5%) had a moderate level, and very few (19.7%) had a high degree of awareness about the same topic. Regarding the public health consequences of diarrheal illness in children under five among mothers, the majority of respondents (67.3%) did not know about these consequences. A small percentage (16.7%) had a moderate level of awareness, and 16 percent had a high level. According to demographic information on age and education level, many respondents (61.9%) had low awareness of the disease that causes diarrhea in children under five, a small percentage (20.4%) had moderate awareness, and a very small percentage (17.7%) had low awareness of the disease based on information on age, occupation, and education level, respectively. Furthermore, regarding the awareness of the public health implications of diarrheal illness of children under five among mothers, based on demographic data regarding age and educational attainment, many respondents (60.4%) had low awareness of the disease's potential health consequences, a small percentage (24.0%) had moderate awareness, and a small percentage (15.6%) had high awareness. Among the recommendations given was that women should be educated and made more aware of the importance of maintaining good personal and environmental cleanliness, eating a healthy diet, and taking care of their young children.

KEY WORDS: diarrhea, under-five children, public health, implications, mothers

INTRODUCTION

According to some estimates, diarrhea is the second greatest cause of death for children under five worldwide, accounting for about two million deaths per year [1]. Children's diarrhea is a highly prevalent issue. A kid experiencing diarrhea has frequent, loose, or watery bowel movements (BM) that deviate from their usual pattern; occasionally, diarrhea may involve mucus or blood [2]. Youngsters who have diarrhea may have fever or weight loss. Dehydration is likely if the diarrhea is severe or persists for a long period. Dehydration can strike infants and kids more quickly. Seizures, brain damage, and even death can result from severe dehydration. Diarrhea kills two to three million people annually worldwide, primarily in developing nations [3]. Diarrhoea is the leading cause of child mortality world wide and usually a burden of the low and middle income countries and it is preventable and treatable [4]

The Millennium Development Goals MDG's (2000) was adopted with the aim of reducing the severe gaps between the rich and the poor population. Most countries have endorsed goal four of MDGs to reduce by two third the mortality rate among children under five years. Due to the death of under five, decision makers have prioritized interventions should be done appropriately. Yet low income earners are still the worst hit of diarrhoea disease.

Diarrhoea is the passage of loose or watery stool occurring three or more times in a 24 hours period [5] It was proposed that diarrhea poses a serious threat to children's nutrition, the home, and the healthcare system.

It has been estimated that 2.2 million deaths, largely in children under five, are attributed to the four million instances of diarrhea that occur each year. This is the same as 20 jumbo aircraft crashing every day or one child dying every 15 seconds. Roughly 15% of children under five who die in poor nations are the result of these deaths [6].

Nigeria has one of the highest rates of diarrheal illness prevalence in sub-Saharan Africa (18.8%), surpassing the regional norm of 16%. In Nigeria, diarrheal disease is responsible for more than 16% of all child deaths. Each year, an estimated 150,000 deaths, mostly of children under five, are attributed to diarrhea, which is mostly brought on by inadequate sanitation and hygiene standards. Malnutrition is another common illness that is closely linked to diarrhea and is responsible for almost half of all fatalities in children under five. Children who are malnourished also have weaker immune systems and are more likely to contract pneumonic illnesses, which raises the nation's infant death rate. This domino effect shows how important proper hygiene habits, like washing your hands, are to a child's survival and development.

The number of children under five who die each year from acute diarrhea has dropped from 4.5 million to 1.8 million worldwide. Children's health and mortality are greatly impacted by acute diarrhea. According to a recent survey, barely half of children with diarrhea receive medical attention or treatment, and more than two-thirds do not receive oral rehydration therapy (ORT) [7]. The most current National Family Health Survey (NFHS), which is the basis for this analysis, indicates that children who receive treatment in a public hospital as opposed to a private one are more likely to receive ORT. The households with moms who are the youngest in age, have the lowest level of education, and have the lowest wealth index are the least likely to treat their diarrheal children appropriately. Parents who treat their male children better than their female offspring and put off medical intervention for the former also exhibit a considerable gender prejudice [8]. These days, diarrheal illness is regarded as one of the main health issues in developing nations like Nigeria. Aside from the physical suffering and death brought on by the afflicted individuals and families, it is one of the causes/contributors to malnutrition, poor health, dehydration, as well as inadequate growth & development after surviving its devastating effects. It also has a negative impact on national development [9, 10]. According to the researcher, there is a high incidence of diarrhea in Orlu Local Government. This calls for prompt and appropriate intervention, raising awareness, and encouraging people to visit health facilities for treatment of a condition like this. It is also important to avoid labeling conditions like "Nra," which is a fungal infection-related disease, and teething in young children, especially those under five.

MATERIALS AND METHODS

Area of the Study

The study was carried out in five (5) selected health facilities (centre) out of the 21 health centers that are presently working. Orlu L.G.A is made up of 33 communities.

Population of the Study

The current population of women of child bearing age was 41,847. The target population was selected from five (5) primary health centers care facilities in Orlu Local Government Area who seek (access) medical care in these health facilities. The choice of health centers was based on health centers where available statistics are found with professional experienced personnel, in order to avoid biased data. The respondents will be chosen from the accessible population in these health facilities.

Sample and Sampling Techniques

The sample for the study comprised Three Hundred and Ninety Six (396) mothers of under five children who attended infant welfare clinics and antenatal clinics within one month in these five selected health facilities.

Instrument for Data Collection

The main instrument for data collection was the structured questionnaire which was made up of four sections A, B, C and D.

Section A contained 3 questions on age, occupation and level of education. Section B contained 6 questions on awareness of diarrhoea disease of under five children among mothers in Orlu Local Government Area. Section C contained 8 questions on awareness of public Health implication of diarrhoea disease and Section D contained 6 questions. All the questions were close ended and patterned using multiple choices. The instruments were validated by three lecturers in Imo State University, Owerri. The validators were required to check the instrument alongside the objectives, research questions and hypotheses in order to confirm the effectiveness in eliciting appropriate responses for the study. The suggestions were used in modifying the instrument used for data collection.

Validity of the Instrument

The instrument was validated by three Lecturers in Imo State University department of Public Health Owerri. The lecturers were requested to examine the objectives of the study, research questions and hypotheses to ascertain the possibility of electing appropriate responses for the study. Modifications were made based on validators comments.

Reliability of the Instrument

Reliability of the instrument was done using split half technique. Twenty copies of the instrument were distributed once to twenty women of child bearing age in Ofeahia Amaifeke maternal and child health centre Orlu headquarter. This was not part of the population for the study. Result of the study was divided into two equal halves using odd (x) and even (y) numbers. Spearman Rank order correlation co-efficient was used in ascertaining the correlation co-efficient.

Method of Data Collection

A letter of introduction (Appendix A) was presented to the sister-in-charge of the Health Centers to allow entry into these health facilities for data collection from the women of under five children and consent of the respondents obtained. Pattern interview was carried was used on illiterate respondents using the same questionnaire items through the help of trained health workers of these health facilities.

Method of Date Analysis

Data collected was analyzed using descriptive statistics of frequency and percentage as well as inferential statistics. The level of significance was set at 0.05. Appropriate degrees of freedom were worked out.

RESULTS

Table 1: Frequency distribution of level of awareness of diarrhoea disease of under five children among mothers of Orlu L.G.A

N = 396

S/N	Issues in Diarrhoea Disease	Level of Awareness			Total
		70% and above High	50-69% moderate	Below 50% low	
A	Meaning				
1.	Passage of loose, watery stool more than 3 times in 24 hours	80	110	206	396
B	Signs and symptoms				
2	Abdominal pain	78	109	209	396
3.	Nausea	77	103	216	396
4.	Vomiting	83	101	212	396
C	Causes				
5.	Contaminated food and hands	101	109	186	396
6.	Water borne disease	111	116	169	396
7.	Food borne disease	79	77	240	396
D	Sources of water that can cause diarrhea are				
8	Rain	106	109	181	396
9.	Pond	66	69	261	396
10.	Stream	96	100	200	396
E	Prevention				
11	Regular hand washing	75	88	233	396
12	Personal and environment hygiene	110	120	163	396
13	Exclusive breastfeeding	30	42	324	396
F	Heard about zinc tablet				
14	Yes	69	71	256	396
G	Drug of choice for treatment of dirrahoea				
15	Zinc tablet	69	71	256	396
H	I know about oral rehydration therapy				
16	Yes	79	89	228	396
I	Oral rehydration therapy is good for treatment of the following				
17	Dehydration	59	78	259	396
18	Diarrhea disease	93	97	206	396

19	Fluid and electrolyte balance	42	58	296	396
J	Diarrhea disease is not manageable				
	No	66	67	263	396
K	Is diarrhea disease curable				
20	Yes	76	80	240	396
	TOTAL	**1645**	**1864**	**4804**	
	AVERAGE	**78**	**89**	**229**	
	PERCENTAGE	**19.7%**	**22.5%**	**57.8%**	**100%**

Table 1: revealed frequency distribution of respondents' level of awareness of diarrhoea disease of under five children among mothers in Orlu Local Government Area. The overall result in table 3 reveals that 78(19.7%) of the respondents possessed high level of awareness of diarrhea, 89(22.5%) possessed moderate level of awareness; while 229(57.8%) possessed low level of awareness on the same issue.

This indicates that half of the mothers possessed low level of diarrhoea disease. Other explanations can be deduced from the table above.

Table 2: frequency distribution of respondents' level of awareness of public health implications of diarrhoea disease

		Level of Awareness			
S/N	**Health Implications of Diarrhea Disease**	**High**	**Moderate**	**Low**	**Total**
A	Health implications				
	Diarrhea cause dehydration				
	Yes	84	93	219	396
B	Dehydration includes the following				
2	Sunken eyes	61	63	272	396
3	Weight loss	98	102	196	396
4	Depressed fontanelle	50	46	300	396
C	Dehydration usually lead to				
5	Malnutrition	30	37	329	396
D	Which of the following complications can lead to death				
6	Dehydration	28	31	337	396
7	Malnutrition	31	34	331	396
8	Water and electrolyte loss	69	68	259	396
E	Diarrhea disease, can it kill if not treated				
9	Yes	118	121	157	396
	TOTAL	**569**	**595**	**2400**	
	AVERAGE	**63**	**66**	**267**	
	PERCENTAGE	**16%**	**16.6%**	**67.4%**	**100%**

Table 2: showed frequency distribution of respondents' level of awareness of health implications of diarrhoea disease of under five among mothers in Orlu Local Government Area. The overall result in table 4 reveals that 63(16%) of the respondents' possessed high level of awareness of health implications of diarrhoea disease, 66(16.6%) possessed moderate level of awareness; while 267(67.4%) possessed low level of awareness on the same.

This indicates that more than half of the mothers possessed low level of awareness of the disease condition.

Table 3: frequency distribution of Level of awareness of diarrhoea disease among respondents' by age

		Level of Awareness			
S/N	**AGE OF MOTHERS**	**HIGH**	**MODERATE**	**LOW**	**TOTAL**
a.	15-30 years	17(4.3%)	22(5.5%)	114(28.8%)	153(38.6%)
b.	31-45years	26(6.6%)	28(7.1%)	90(22.7%)	144(36.4%)
c.	46years and above	35 (8.8%)	39 (9.8%)	25(6.3%)	99(25%)
	TOTAL	**78 (19.7%)**	**89(22.5%)**	**229(57.8%)**	**396(100%)**

χ Cal =48.9> χ 0.05 = df4 = 9.49, P < 0.05

Table 3: revealed the level of awareness of diarrhoea disease of under five among mothers in Orlu Local Government Area. Results of the study shows that out of 153(38.6%) of respondents 15-30 years 17(4.3%) possessed high level of awareness of diarrhoea disease, 22(5.5%) possessed moderate level of awareness of diarrhoea disease; while 114(28.8%) possessed low level of awareness respectively.

Out of 144(36.4%) of respondents 31-45years, 26(6.6%) possessed high level of awareness of diarrhoea disease, 28(7.1%) possessed moderate level of awareness and 90(22.7%) possessed low level of awareness.

Furthermore, out of 99(27%) of respondents 46 years and above, 35(8.8%) possessed high level of awareness of diarrhoea disease, 39(9.8%) possessed moderate level of awareness and 25(6.3%) possessed low level of awareness respectively on the same issue.

When the data was subjected to chi-square analysis to tests the hypothesis that there is no significant difference in the level of awareness of diarrhoea disease of under five children among mothers in Orlu Local Government Area. The result showed that calculated χ value of 48.9> tabulated value of 9.49 at 4 degrees of freedom. Hence, the null hypothesis stated was rejected and conclusion drawn that there was significant difference in the awareness of diarrhoea disease of under five among mothers in Orlu Local Government Area based on age.

Table 4: frequency distribution of level of awareness of diarrhoea disease among respondents by occupation

		Level of Awareness			
S/N	**MOTHERS OCCUPATION**	**HIGH**	**MODERATE**	**LOW**	**TOTAL**
a.	Farming	22(5.6%)	26(6.6%)	111(28%)	159(40.1%)
b.	Trading	24(6.0%)	29(7.3%)	49(12.7%)	102(25.7%)
c.	Civil servants	19(4.8%)	22(5.5%)	44(11.1%)	85(21.4%)
d.	Artesian	13(3.3%)	12(3.1%)	25(6.3%)	50(12.6%)
	TOTAL	**78(19.7%)**	**89(22.5%)**	**229 (57.8%)**	**396 (100%)**

χ Cal =17.0> χ 0.05 df 6 =12.59; P< 0.05

Table 4: revealed that the level of awareness of diarrhoea disease of under five children among mothers in Orlu local Government Area. Results of the study showed that out of 159(40.1%) mothers with farming as their occupation, 22(5.6%) possessed high level of awareness, 26(6.6%) possessed moderate level of awareness; while 111(28%) possessed low level of awareness of diarrhoea disease.

Out of 102(27.7%) mothers with trading as their occupation, 24(6.0%) possessed high level of awareness of diarrhoea disease, 29(7.3%) possessed moderate level of awareness of diarrhoea disease; while 49(12.4%) possessed low level of awareness of the same disease.

Out of 85(21.4%) mothers with civil servants, 19(4.8%) possessed high level of awareness of diarrhoea disease, 25(5.5%) possessed moderate level of awareness; while 44(11.1%) possessed low level of awareness on the same disease.

Moreover, out of 50(12.6%) mothers with Artesian, 13(3.3%) possessed high level of awareness of diarrhoea, 12(3.1%) possessed moderate level of awareness; while 25(6.3%) possessed low level of awareness on the same issue respectively.

When the data was subjected to chi-square analysis to tests the hypothesis that there is no significant difference in the level of awareness of diarrhoea disease of under five children among mothers in Orlu Local Government Area. The result showed that calculated χ value of 17.0> tabulated value of 12.59 at 6 degrees of freedom. Hence the null hypothesis stated was rejected and conclusion drawn that there was significant difference in the awareness of diarrhoea disease of under five among mothers in Orlu Local Government Area based on the level of education.

DISCUSSION

According to the results, the majority of respondents (57.8%) reported having low awareness of the diarrhea disease, while very few respondents (19.7%) had high awareness of the condition. A small percentage of respondents (22.5%) had moderate awareness. This is consistent with the research study [11,12]conducted in a marginalized population of Morang, Nepal, to find mothers' awareness of childhood diarrhea and its management. It was discovered that there was a lack of awareness on home remedies for diarrhea and symptoms of dehydration. Interventions in public health education are therefore necessary. The outcome was anticipated, and the researcher was not taken aback. This is a result of the quantity of kids that visit hospitals to receive treatment for diarrheal illness [13].

Regarding the degree of knowledge regarding the public health consequences of diarrheal illness in children under five among mothers in Orlu Local Government Area, the findings showed that while the majority of respondents (67.4%) reported low awareness of the disease condition, only a small percentage of respondents (16%) were aware of the public health consequences of diarrheal illness. Additionally, only a small percentage of respondents (16.6%) were aware of diarrhea itself. It was noted that infections, particularly those produced by Shigella, were one of the factors that contributed to diarrheal illness complications. The majority of these infections resulted in diarrhea that was resistant to certain medications, and other complications included bloody diarrhea [14, 15]. Given certain instances of complicated situations seen in medical facilities, the researcher was not taken aback.

Additionally, based on age-related demographic data, it was found that a small percentage of respondents (17.7%) knew about diarrheal sickness, a smaller percentage (20.4%) knew about it, and the bulk of respondents (61.9%) reported knowing very little about the illness condition.According to demographic and occupational data, only 17.9% of respondents were aware of the disease diarrhea; a smaller percentage of respondents (20.5%) were aware of the sickness, and the majority of respondents (61.6%) reported having little understanding of the condition [16]. Then, based on demographic information about age, only a small percentage of respondents (17.7%) and a small percentage of respondents (20.4%) were aware of diarrheal disease, respectively, while the majority of respondents (61.9%) revealed limited awareness of the disease condition based on educational attainment. Children under five who live in rural Burundi are more likely to have diarrhea [17]. The findings indicate that only 3% of families had access to better sanitation, whereas 46% of households obtained their drinking water from improved water sources. Additionally, 17.9% of households received hygiene education and boiled their water before using it, and diarrhea was linked to mothers who were under 25. The researcher was taken aback because throughout prenatal and infant welfare clinics, awareness of hand washing practices and personal hygiene has been raised.

Furthermore, based on demographic data about age, the results indicated that a small percentage of respondents (15.6%) were aware of the public health consequences of diarrheal disease among mothers of children under five. Similarly, a smaller percentage of respondents (24.0%) were aware of these implications, However, based on age-related demographic data, the majority of respondents (60.4%) indicated a low level of awareness of the illness. According to demographic and occupational data, only a small percentage of respondents (15.9%) were aware of the existence of diarrhea disease; a smaller percentage of respondents (23.7%) were aware of the sickness, whilst the bulk of respondents (60.4%) reported having little awareness of the condition [18]. Then, based on demographic information about education level, a small percentage of respondents (15.6%) reported knowing about the public health implications of diarrheal disease, while the majority of respondents (60.4%) reported knowing very little about these implications. There have been reports on the prevalence and aetiology of diarrheal illness in newborns and early children in poor nations [19, 20]. a multicenter investigation into Shigella diarrhea across six Asian nations. Findings revealed that 605,331 individuals were studied for a duration of one to three years throughout the six locations. The project found 62,266 cases of diarrhea, which were linked to infection, a low level of awareness, and inadequate sanitation and hygiene among residents.

CONCLUSIONS

A significant proportion of respondents (57.8%) reported having low awareness of diarrheal illness in children under five, whereas a smaller percentage (22.5%) reported having moderate awareness and a very small percentage (19.7%) reported having high awareness of the condition. Health professionals and educators should raise public awareness of diarrheal disease, its symptoms, indications, and prevention and management strategies, especially among mothers of children under five.

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