

Original Research Article

## Knowledge attitude and practices of mothers regarding diarrhoea in children in Abakaliki LGA of Ebonyi state

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**Abstract:** Diarrheal disease has significantly led to infant morbidity and mortality. Infection is spread through contaminated food or drinking water, or from person-to-person as a result of poor hygiene. Death from diarrhoea is mainly due to loss of water and essential minerals. Oral rehydration solution (ORS) is most useful in its treatment. Prevention is basically through safe drinking-water and adequate sanitation and hygiene. This study is therefore aimed at determining mother's knowledge, attitude and practice about diarrhoea in children at Abakaliki LGA of Ebonyi State. A cross sectional questionnaire based study was conducted on 33 women who brought their babies to the well-baby/immunization clinics at a primary health hospital in Abakaliki LGA. The questionnaire consisted of three section designed for assessing the knowledge, attitude and practice and a section for demographic characteristics. Liker's scale which has 5 responses viz; strongly disagree, disagree, doubtful, agree, and strongly agree was used to assess their response. For each question, Participants chose one option from the 5 responses. Data was analyzed using Epi Info 7. 1. 3. 10 of CDC Atlanta. Majority (81.8%) had good knowledge about diarrhoea illness, these were seen mainly among mothers who reside at urban areas and who also had higher level of education. Majority 69.70% strongly belief that witchcraft cause diarrhoea, these were mainly from the rural areas with low or no formal education. 42.4% of these women use antidiarrheal in treatment. Although many mothers had adequate knowledge about diarrhoea illnesses, this study has shown that there is still need to fill up gaps in their attitudes and practice especially in the rural areas to reduce the mortalities associated with diarrhoea illnesses.

**Keywords:** diarrhea, Oral rehydration solution, knowledge, attitude and practice.

### INTRODUCTION

Globally, about two million children die each year, most of these deaths occur in sub-Saharan African countries [1]. Diarrhoea is the leading cause of malnutrition and second leading cause of death in children under five years of age. About 760 000 children of such children die from diarrhoeal illnesses annually [2,3]. The average child in developing countries experiences three or more episodes of diarrheal disease each year, accounting for up to 4 billion cases annually [2,6]. In Nigeria, diarrheal disease alone is responsible for 27% of all infant morbidity and 24% of all infant mortality [4,5]. A significant proportion of these diseases can be prevented through safe drinking-water and adequate sanitation and hygiene.

Diarrhoea is usually a symptom of an infection in the intestinal tract, which can be caused by a variety of bacterial, viral and parasitic organisms. Infection is spread through contaminated food or drinking water, or from person-to-person as a result of poor hygiene [2].

Prevention can be through good hygiene, adequate diet, adequate health care, breastfeeding and immunization. Death from diarrhoea is mainly due to loss of water and essential minerals. These can be compensated in most cases by an oral rehydration solution (ORS) [7-9]. Other remedies applied in diarrhoea management are continued breastfeeding, non-stop feeding during diarrhea, regular consumption of nutrient-rich foods, probiotics and zinc supplementation [10]. Most of the diarrhea episodes are treated in homes, and mothers are usually the major caregivers in children under five years old. As the primary caregivers, mothers knowledge, attitude and practice about diarrhoea in children is very important in preventing and early management of diarrhoea illnesses thereby reducing this high mortality and morbidity associated with diarrhoea diseases.

Diarrhea can usually be defined as an increase in stool frequency to twice the usual number per day in infants, or three or more loose or watery stools per day in older children [2]. Studies [2] revealed that rotavirus is the most frequent etiological agent of diarrhea and of

the bacterial infectious agents, *Escherichia coli* are the major pathogens afflicting children aged less than five years [11,12]. Most of diarrheal episodes are self-limited however the mortality is primarily due to dehydration [13]. Other Major risk factors for mortality from diarrhea include young age, poor nutritional status and lack of breastfeeding [13,14]. Oral rehydration therapy (ORT) with oral rehydration salt (ORS) solutions is the appropriate management of diarrheal dehydration and is the single most effective strategy in preventing diarrheal deaths in children [11]. ORS has been considered as inexpensive and can be easily administered at home by the mothers as soon as a diarrhea episode begins. Its use has been widely advocated by World Health Organization [15]. WHO recommended that mothers and caregivers should be able to identify the signs of dehydration including excessive thirst, sunken eye, reduced urine output, excessive drowsiness, poor skin turgor and restlessness and absence of tears [2,15]. Accurate knowledge regarding signs and symptoms, spread, prevention and healthy practices like exclusive breast feeding, immunization, ORS, good sanitary conditions are essential to prevent morbidity and mortality.

A cross-sectional study involving 80 mothers at a Primary Health Care Centre, in Maiduguri, Nigeria [18] in 2006 to assess mothers' knowledge, attitude and practice of home management of acute watery diarrhoea in under -5 children revealed gaps in knowledge, attitude and correct practice of home management of acute watery diarrhoea. They found that all mothers had heard of ORS, while 20% of them had good knowledge of home management of acute watery diarrhoea. No significant difference in knowledge of home management was observed in relation to age and parity of the mothers, but significant statistical difference was found between mothers with tertiary education and those with no education. Mothers had good knowledge of ORS. The general attitude of the mothers towards ORS was higher than to other recommended home fluids of home management of acute watery diarrhoea. The non-users of ORS were mainly teenage mothers with no education. They recommended Proper education and training of stake holders in diarrhoeal disease management in health facilities.

Still in Nigeria, a similar study [19] 71.5% of the respondents identified increased frequency of stooling as a symptom of diarrhea and also recognized some preventive methods like adequate environmental hygiene, provision of adequate health care delivery services and prompt treatment of infection. Method of sewage disposal was also found to have influenced the occurrence of diarrheal diseases. ( $p=0.004$ ). Their level of education was found to have an influence on the substances used to treat diarrhea in children under five and also their knowledge of food restriction in a child with diarrhea ( $p=0.000$  and  $0.018$  respectively). Respondents had knowledge of Oral Rehydration

Therapy, only few knew it was used to replace lost fluids and electrolyte.

Most of the diarrhea episodes are treated in homes, and mothers are usually the major caregivers in children under five years old. As the primary caregivers, mothers knowledge, attitude and practice about diarrhoea in children is very important in preventing and early management of diarrhoea illnesses thereby reducing this high mortality and morbidity associated with diarrhoea diseases. This study is therefore aimed at determining mother's knowledge, attitude and practice about diarrhoea in children at Abakaliki LGA of Ebonyi State.

## MATERIALS AND METHODS

A cross sectional questionnaire based study was conducted in November 2016 on 33 women who brought their babies to the well-baby/immunization clinics at a primary health hospital in Abakaliki LGA, Ebonyi State. Informed consent was obtained from the participants. While ethical approval was obtained from the ethical committee of Ebonyi State University, Abakaliki, Ebonyi state.

The questionnaire were administered and retrieved by the investigator as soon as they were filled. It consisted of three section designed for assessing the knowledge, attitude and practice and a section for demographic characteristics. There were 13 questions for assessment of the knowledge and 6 questions for attitude and 6 questions for practice using Likert's scale which has 5 responses viz; strongly disagree, disagree, doubtful, agree, and strongly agree. For each question, Participants chose one option from the 5 responses. Questions were designed based on knowledge about incidence of diarrhea, diarrheal etiologies, risk associated diarrhea, associated symptoms, treatment, and maternal behavior associated with nutritional factors during diarrhea. Mothers who were educated filled the questionnaire and for mothers who were uneducated, the questionnaire was completed by the researchers.

Data collection was done by the researcher. Data was analyzed using Epi Info 7. 1. 3. 10 of CDC Atlanta. Socioeconomic stratification was based on methods proposed by Oyediji [19]. Results were presented in form of frequency tables. The dependent variables were knowledge on causes of diarrhea while socio-demographics, practices and attitude were independent variables. The level of statistical significance was set at  $p < 0.05$ .

## RESULTS

Total 33 questionnaires distributed were returned completed giving a response rate of 100%.

**Socio-demographic characteristics**

All the respondents were married and they were mainly between ages 25 – 34 years. Most had between 2- 4 children. All had formal education up to

primary level but greater percentage (75.76%) had tertiary education. Most 78.76% resided at urban area. Majority belong to upper and middle class while 15.15% belong to lower socioeconomic class.

**Table-1: Age of mothers**

AGE(year)	Frequency	Percent
15-24	4	12.12%
25-34	24	72.73%
35-44	4	12.12%
≥45	1	3.03%

**Table-2: Socioeconomic class**

Socioeconomic class	Frequency	Percent
High	15	45.45%
Low	5	15.15%
Middle	13	39.39%

**Knowledge about the causes and risk factors to diarrhoea**

All the respondents agree that lack of safe drinking water lead to diarrhoea with greater percentage strongly agreeing. About 48.5% strongly agree that diarrhoea illnesses occur more during the dry season and present with scanty urination. Majority agree (48.5%) and strongly agree (33.3%) that bottle feeding can predispose a child to diarrhoea. Many mothers agree (42.4%) and strongly agree (30.30%) that tooth eruption in children can lead diarrhoea.

**Practice**

While majority agree and strongly agree that treatment of diarrhoea should begin at home, some 3.03% disagree and strongly disagree to this. Majority agree that giving ORS replaces lost salt and from the body, some 3.03% still strongly disagree to this. Those

that disagree are mainly from rural area and from low socioeconomic class. All the respondents agree and strongly agree that a child with sunken eyes and poor urination should be taken to hospital immediately. Majority use antidiarrhoea is treatment.

**Attitude**

9.09% of the respondents strongly believe that passage of stool everywhere will predispose other children to diarrhoea. These were found mainly in mothers with low education who also belong to low socioeconomic class. Similarly 3.03% of mother strongly disagree that hand washing before food reduces diarrhoea while 6.06% were doubtful of the fact that hand washing after defecation reduced diarrhoea occurrence. While Majority 69.70% strongly disagree that witchcraft cause diarrhoea, some, 3.03% still agreed and 6.06% were doubtful.

**Table-3: Knowledge about the causes and risk factors to diarrhoea**

	Strongly agree %	Agree %	Doubtful %	Disagree %	Strongly disagree %
Diarrhoea is passage of 3 or more stools /day	30.3	51.5	9.1	3.0	6.1
Tooth eruption can cause diarrhoea	30.3	42.4	18.2	6.1	3.0
Exposure of food to flies can cause diarrhoea	51.5	36.4	-	-	12.1
Dehydration from diarrhoea present as increased thirst, absence of tears while crying sunken eyes	33.3	48.5	-	3.0	3.0
Diarrhoea may cause death in children	57.6	27.3	3.0	6.1	6.1
Vaccination may prevent diarrhoea in children	36.4	42.4	12.1	6.1	3.0
ORS is prepared with specific amount of sugar salt and water	54.6	36.4	3.0	-	6.1
Breastfeeding should be continued in diarrhoea episodes	54.6	39.4	3.0	-	3.0
Antidiarrheal is used in treatment	18.2	24.2	27.3	21.2	9.2

## DISCUSSION

The findings of this study shows that the age distribution of respondents clustered around 25- 34 years which appear to be the peak of the reproductive age for women in that locality possibly because majority was educated so they spent more time to acquire formal education than early marriage. All forms of educational status were represented in this study; ranging from those who had no form of formal education to those who had tertiary education.

Generally many mothers (81.82%) know that diarrhoea is passage of 3 or more stools /day. This similar to study done by Mustapha [18] in Boron, Nigeria in which 78.8% of mothers defined diarrhoea as such. Many have the knowledge that lack of safe drinking water, bottle feeding and exposure of food to flies lead to diarrhoea. The respondents strongly agree that diarrhoea illnesses occur more during the dry season. Many mothers strongly agree that tooth eruption in children can lead diarrhoea but strongly disagree that witchcraft is a cause of diarrhoea. This is similar to the study done in Enugu [21] in which 71% of mother belief tooth eruption is contributory to development of diarrhoea in children.

Few of the respondents however still strongly disagree with passage of stool everywhere as a cause of diarrhoea. These were found mainly in mothers with primary education and who also belong to low socioeconomic class. Similarly some mothers strongly disagree that hand washing before eating food reduces diarrhoea while few were doubtful of the fact that hand washing after defecation reduced diarrhoea occurrence.

Majority identified increased thirst, poor urination and absence of tears while crying sunken eyes as signs of dehydration in this study. This is similar to findings by WHO [2]. The few who strongly disagree with these signs as signs of dehydration were essentially teenagers with low level of education and from low socioeconomic class. This is similar to the findings by some researchers [3,17,18]. Many of the respondents' belief vaccination may prevent diarrhoea in children. This in agreement with a study done United States to assess the efficacy of rotavirus vaccination. Only few strongly disagree with vaccination as a preventive measure to diarrhoea illnesses. In this study few respondents, still strongly belief diarrhoea does not kill.

While majority agree and strongly agree that treatment of diarrhoea begins at home, few strongly disagree to this. Many of the respondents continue breastfeeding even in diarrhoea episodes. This equally agrees with the Nigerian study [18] in Maiduguri, Nigeria. In this study, majority agree that ORS is prepared with specific amount of sugar salt and water and that giving ORS replaces lost salt and from the body, few still strongly disagree to this. Those that disagree are mainly from rural area and from low

socioeconomic class. All the respondents agree and strongly agree that a child with sunken eyes and poor urination should be taken to hospital immediately. Majority strongly agree that antidiarrheal which is highly contraindicated is a treatment option.

Although mothers in this area had adequate knowledge there is still need to fill up gaps in their attitudes and practices especially in the rural areas to reduce the mortalities associated with diarrhoea illnesses.

## CONCLUSION

Although mothers in this study had adequate knowledge about diarrhoea illnesses, the study has shown that there is still need to fill up gaps in their attitudes and practice especially in the rural areas to reduce the mortalities associated with diarrhoea illnesses, major killer disorder but highly preventable and treatable. Therefore the knowledge, attitude and practice of mothers as primary care givers about diarrhoea in children is very important in preventing and early management of these illnesses.

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