

## Evaluation of Care-Takers Awareness, Training and Approaches in the Management of Diarrhea in Children in Nawampiti Parish

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### ABSTRACT

In Uganda diarrhea is among the leading causes of childhood morbidity and mortality. Uganda had the highest number of under-five child deaths (145,000) in the world and is one of the 42 countries in the world that contributed about 90% of all under five childhood deaths in the world. Diarrhea can occur as a symptom of many different illnesses, and as a side effect of some drugs. This study aimed at determining the knowledge, practice and attitude that care takers have in managing of diarrhea in children of five years of age and below as well as establishing the treatment given. Data was collected from 75 people among the community by the use of preceded response schedule, any child care taker of any sex who was found in the home aged five years and consented to be interviewed was recruited in this study. The data was analyzed by Microsoft word, results presented in a tabular form and short comments were discussed. The mean age of respondents was 37 years; the majority of the respondents were females 96%. The largest population 41.3% had attained formal education, while at least 36% had primary level education. 40% percent of the respondents mentioned using antidiarrheal drugs and 40 percent of the care takers gave oral fluids instead of drugs. 90.7% of the mothers knew about ORS but only 29% of these knew how to prepare it. 42.7% of others knew about sugar salt solution but only 9.4% could prepare it well. 96% of the respondents had positive attitude towards treatment while 46% did not believe in using traditional treatment. 25.3% believed in using both traditional and medical treatment. 40% of the mothers believed that increased feeding Intensifies diarrhea. Poor knowledge was associated with low education level, most respondents were house wives, and most population lives on peasant farming and small-scale trading hence poor knowledge including poor practice and attitude were found in area of low social economic status than elsewhere. The findings in this research shows that most respondents still lack adequate knowledge, appropriate practice and attitude about treatment of diarrhea in children.

**Keywords:** Diarrhea, Children, Knowledge, Care takers, Drugs.

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### INTRODUCTION

Diarrhea refers a change in bowel habit for the individual child resulting in substantially more frequent and/or looser stools. It is the most important public health problem connected to water and sanitation and can be both "waterborne" and "water-washed" [1, 2, 3, 4, 5, 6, 7]. In recent decades, a consensus developed that the key factors for the prevention of diarrhea are sanitation, personal hygiene, availability of water and good quality drinking water; and that the quantity of water that people have available for hygiene is of equal or greater importance for the prevention of diarrhea as the bacteriological water quality [2, 8, 9, 10,

11, 12, 13, 14, 15]. Globally, there are nearly 1.7 billion cases of diarrheal disease every year where each year it kills around 760,000 children under five. Diarrheal diseases is the second leading cause of death in children under five years old though it is both preventable and treatable. World Health Organization [3, 16, 17, 18, 19]. Diarrheal diseases have long been established as a leading cause of morbidity and mortality throughout the world, where an estimated 3-5 billion diarrheal illness and 5-10 million diarrhea-related deaths occur annually among those living in Africa, Asia, and Latin America [4, 20, 21, 22, 23, 24, 25, 26]. The highest

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rates of child mortality are in Sub-Saharan Africa and Southeast Asia. An estimated 1.7 billion episodes of diarrhea, equaling approximately 2.9 episodes per child per year, created health system costs of about 7 billion US dollars (Hutton G, 2004). In developing countries, diarrhea is among the leading causes of childhood morbidity and mortality. An estimated one billion episodes and 2.5 million deaths occur each year among children under five years of age. About 80% of deaths due to diarrhea occur in the first two years of life [5].

In the year 2000, Uganda had the highest number of under-five child deaths (145,000) in the world and is one of the 42 countries in the world that contribute about 90% of all under five childhood deaths in the world, at 134 deaths per 1000 live births, Uganda has the worst under five mortality rates of the three east African countries [6]. Diarrhea can occur as a symptom of many different illnesses, as a side effect of some drugs or may be due to anxiety among other things. Diarrhea results from an imbalance in the absorption and secretion properties of the intestinal tract; if absorption decreases or secretion increases beyond normal, diarrhea results. It can range in severity from an acute, self-limited annoyance to a severe, life-threatening illness.

Infectious or noninfectious causes may be responsible for acute diarrhea and, in selected patients, both can occur simultaneously. Noninfectious causes of diarrhea include drugs, food allergies, primary gastrointestinal diseases such as inflammatory bowel disease, and other disease states such as thyrotoxicosis and the carcinoid syndrome [7]. A variety of infectious diseases cause acute diarrhea. It is useful to categorize infectious diarrheal diseases by [8]. Torsion of the intestine that they are prone to infect since the presenting symptoms vary by region of the intestine involved in disease [9]. Managing diarrhea at home is quite common among rural mothers, but their level of knowledge is poor Perception of the seriousness of diarrhea or other health related conditions is a paramount factor for seeking healthcare [10]. There is a practice of reducing and even stopping fluids during

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diarrhea [11]. Despite universal popularity of oral rehydration solution (ORS) in preventing dehydration due to diarrhea, its use in practice is very low [12]. The poor practice of using ORS is accompanied by its incorrect preparation which is related to lack of mothers' prior experience [13]. This study will be conducted to determine mothers' knowledge, attitude and practice about diarrhea and its management at home.

#### **Statement of problem**

According to [6], diarrhea is the leading cause of morbidity and mortality in children under 5 years of age worldwide. The burden is more prevalent among children in developing countries (where Uganda is found) [14]. In the whole world, half of the diarrhea related deaths among children under 5 years occur in Africa [3]. Many caretakers are said to lack health-seeking behaviors in cases of illness, while others are known to resort to use of traditional means. It is also a common practice for the mothers or caretakers to buy drugs and give them to children (self-medication) with a diarrheal attack. This means that there is more need for the implementation process of the WHO and CDD recommendation on diarrhea. The caretakers' knowledge, practices and attitude towards the treatment of diarrhea becomes an area of concern. Usually, bad practices result from wrong attitudes or beliefs. Diarrhea is on an increase in Kaliro district, yet data and information about caretakers' knowledge, practices and attitude towards diarrhea treatment remains scarce as no studies have previously been done to establish this, thus inadequate or misguided response towards this health problem.

#### **Study significance**

Unlike other diseases, diarrhea is generally not considered as an illness and, thus most diarrheal cases are either not managed at all or managed at home through traditional approaches [15]. About one half of children under five years are not taken to any healthcare center and about one-third of the children with diarrhea do not receive any treatment at all [16][17][18][19]. It is in view of all that therefore that I desired to carry out a study

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to assess the knowledge, practices and attitudes of care takers about the treatment of diarrhea in children under 5years. The findings from this study will guide stakeholders and policy makers in formulating and implementing health programs to improve the situation [20][21][22][23].

#### **Aim of the study**

To assess caretakers towards the treatment of diarrhea in children under 5years in Nawampiti parish.

#### **Specific Objectives**

- To assess the knowledge of care takers about the treatment of diarrhea in children under 5years in Nawampiti parish.
- To assess the practices of care takers in the treatment of diarrhea

### **METHODOLOGY**

#### **Study design**

A cross sectional study was used to assess knowledge, practice and attitude of caretakers towards the treatment of diarrhea among children under five in Nawampiti parish.

#### **Area of Study**

This study was carried out in Nawampiti parish found in Kaliro District-Eastern Uganda.

#### **Study population**

The study population consisted of all caretakers attending to children under 5years in Nawampiti parish.

#### **Sample Size Determination**

The average total number of children under 5years in Nawampiti parish was 35 [17]. The sample size was determined using [14].

$$n = \frac{z^2 p (1-p)}{d^2}$$

Where d = margin of error

n= minimum sample size

z=standard normal deviation set at 95% confidential level corresponding to 1.96

p= expected prevalence (proportion)

Therefore taking

$$p = 0.5$$

$$z = 1.96$$

$$1-p = 0.5$$

$$d = 0.1$$

$$\text{Thus } n = \frac{(1.96)^2 0.5(1-0.5)}{(0.1)^2}$$

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in children under 5years in Nawampiti parish.

- To determine the attitudes of care takers towards the treatment of diarrhea in children under 5years Nawampiti parish

#### **Research Questions**

- What do caretakers in Nawampiti parish know about the treatment of diarrhea in children under 5years?
- Which practices do caretakers in Nawampiti parish do in the treatment of diarrhea in children under 5years?
- What attitude do care takers in Nawampiti parish have towards the treatment of diarrhea in children under 5years?

n= 96In this study the sample size was 96 respondents.

#### **Sampling method**

Simple random sampling method was used for qualitative data collection.

#### **Selection criteria**

#### **Inclusion criteria**

Mothers and caretakers with a child aged below five years in Nawampiti parish.

#### **Exclusion criteria.**

Care takers below 15years

#### **Data collection method**

A structured questionnaire was used to collect data from the respondents in the parish.

Data was collected by conducting in-depth interview with the caretakers available at converging units during the time of data collection. Data was collected from Monday to

Friday for one month from may up to June in every morning before clinical work start.

#### **Data analysis**

**After collecting data, it was computed using Microsoft word and analyzed.**

Data obtained was kept in safe custody and treated with confidentiality and then checking was done at the end of every working day to ensure correct and complete information.

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**Data presentation plan**

Analyzed data will be presented in form of tables.

**Ethical considerations**

A letter of introduction was obtained from the faculty research unit after submitting the research Proposal. The researcher introduced himself to the parish chief and L.C I chairpersons of the different villages. Data collected was treated with

confidentiality through coding to avoid revealing of personal individual information. Informed consent was asked from all the research participants using an informed consent form signed by every participant. Participants who feel uncomfortable were allowed to withdraw at any moment in the data collection process without any

**RESULTS**

**Socio-demographic factors**

**Respondents by age**

All respondents were in the age packet (25-34), (35-44) age and were more knowledgeable. The least age group

<15years. This could be the age they expected to be at school and cases of sexual activities are reported in school and (above) (<65years).

**Table 1. Distribution of Respondent by age**

AGE GROUP	NUMBER	PERCENTAGE
<15	0	0%
15-24	7	9.3%
25-34	21	28%
35-44	21	28%
45-54	12	16%
55-64	9	12%
>or=65	5	6.7%
<b>Total</b>	<b>75</b>	<b>100%</b>

**Respondents by Education Level**

According to the table 2 below 35 (46.6%) of respondent were just home wives and not employed. There was the majority category of the respondent. Yet Government employed ones were 6(8%)

taking. The minority, were peasants and self-employed also included the house girls. 75 (100%) of the homes assessed how children between 0-5years, this is because the focus was on children <5years, so any home with such children were assessed.

**Table 2. Distribution of Respondents by Education Level.**

OCCUPATION	NUMBER	PERCENTAGE
Peasant	23	30.7%
Self employed	11	14.7%
Government Employed	6	8%
House wife/ Coat Employed	35	46.7%
<b>Total</b>	<b>75</b>	<b>100%</b>

**Distribution of respondent by gender**

Out of the 75 respondent interview 72 (96%) were females while only 3 (4%) were

males. The other factor that was examined was marital status of respondent were 51(68%) were married while 13(5.3%) were

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single, 7(9.3%) had separated and 4(5.3%) widowed. However, ways of how caretakers heal (treat) diarrhea out was

another factor that was assessed. The findings in table 5 below.

**Table 3. Distribution of respondent by gender.**

GENDER	NUMBER	PERCENTAGE
Male	3	4%
Female	72	96%
<b>Total</b>	<b>75</b>	<b>100%</b>

**Caretaker's ways (knowledge) of dealing with Diarrhea.**

According to table 4, Although majority 33(44%) of the respondents showed that they adapted use of anti-diarrhea drugs, it is worth noting that at least 30(40%) appreciated that giving plenty of oral fluids for treating diarrhea at home was

logical, 4(5.3%) suggested use of herbs and 6(8%) could just rest the child out home and observe them conditions. This was the minority number. Furthermore, caretaker practices towards breast feeding children during diarrhea were also assessed as in the table below.

**Table 4. Caretaker's ways (knowledge) of dealing with diarrhea**

INTERVENTION	NUMBER	PERCENTAGE
Use plenty of fluids.	30	40%
Use anti-diarrheal drugs bought from clinics.	33	44%
Use herbs.	4	5.3%
Take children to hospitals.	6	8%
<b>Let child rest while observe it.</b>	<b>2</b>	<b>2.7%</b>
<b>Total</b>	<b>75</b>	<b>100%</b>

**Practices and attitude of Respondents towards Breast Feeding.**

35(46.7%) being the majority actually did continued with breast feeding even more often than usual, 33(44%) stopped breast feeding yet 7(9.3%) continue breast feeding their children but as usual. Source of survey data. In often to determine their attitude (if the respondent appreciated the importance of breast feeding in diarrhea,

they were asked whether they will contain breast feeding their children more often. Caretaker's knowledge and attitudes towards use of anti-diarrheal drugs was also assessed 45(60%) of respondents thought that of diarrhea the anti-diarrheal drugs are always needed to treat every occurrence of diarrhea, while 30(40%) realized that drugs are not needed in treatment of diarrhea.

**Table 5. Practices and attitude of Respondents towards Breast Feeding**

PRACTICE	NUMBER	PERCENTAGE
Continue breast feeding more often.	35	46.7%
Stop breast feeding.	33	44%
Continue breast feeding as usual.	7	9.3%
<b>Total</b>	<b>75</b>	<b>100%</b>

## DISCUSSION

A population of 75 respondents, whose average age was 37 years, were interviewed. This therefore is an adult population whole interviewed this therefore is an adult population whose opinions were reliable. The majority of the respondent fell in the age range of 25-44, normally this is the critical reproductive age group. So, considering the target group of children below 5 years, most of these were mothered by the respondent in the age group. More women were interviewed than men. Women are more involved in care of children at home than the men, who usually leave the home either work or otherwise, most women remain to take care of the home and so they have updated information about children. In fact, homes in which both parents were present; the father would refer the researcher to the mother. Most of the responds 51(68%) were married. As most married people have children below five years, so chances of finding a child below 5 years was then high in the married than singles or any other category. The educational level showed that largest population of the respondents had not attained any formal education, 31(41.3%) while 27(36%) had primary level school education, 5(6.7%) had reached tertiary level, so most of them being considered illiterate. When education level was examined against caretakers knowledge, Practice and attitude towards the management of diarrhea, significantly we realized poor knowledge practice and attitude was more in uneducated than in well educated. Therefore, health education messages must be designed in such a way that can easily be understood by members of such communities

The occupation status of respondents shared that 35(46.7%) were house wives and the rest divided away peasants, self-employed and few 6(8%) were government employed. Most population here subject are forming and small-scale trading as their economic activity and they are then below low socio-economic status. Poor knowledge practice and wrong attitude has been found to be more prevented in areas where the socio-economic status of population is low, by various studies. It

was found that majority of the adapted use of anti-diarrheal drugs as an interview to away with every occurrence of diarrhea, so it can be observed that majority of the population does not know when drugs should be indicated and when not. These are therefore considered ignorant about significance of use of plenty of fluids and also how diarrhea affects the children. However, 30(40%) appreciated the use of oral fluids at home, this category being considered to be having some knowledge of how to deal with diarrhea at home. Meanwhile few could take the children to hospital (health faculties) in every occurrence or re-occurrences of diarrhea, all showed that they know to manage diarrhea at home. It is a better step than practice of just observing the child at home by other respondent. Furthermore 4(5.3%) suggested the use of herbs. This is consistent with the study carried out in Uganda [4]. which showed that herb treatment is widely used (source of survey data). The majority of respondents gave more feeds than usual, In case of occurrence of diarrhea. If did not necessary mean that respondent's understood the importance of extra feeding. It could be because there is generally a practice of caretakers tending to accumulate various fluids to their sick children and encourage them to feed. The practice any how is assessing in disguise to the child as it is beneficial in replacing the fluids lost from the body, never the less respondents who either feed the children as usual or with less feed are therefore considered ignorant about the use and value of extra feeding.

It was realized that most caretakers give fruits, juice to their children when they get diarrhea. It means a positive practice in treatment of diarrhea in such communities, Juice fruits are readily available, it is however crucial to establish that fruit juices are of treatment is employed. Yogurt could also be helpful, but only harm full of respondents can afford it due to socio economic status. Other fluid feeds given (porridge, milk, rice water, bean soup, ordinary tea) were given depending on availability and

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affordability. Furthermore, very few caretakers can afford own special dishes (food) that could be more useful in diarrhea and this could explain the persistent of diarrhea to complication. Breast feeding was contributing factor looked out, more interestingly

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mothers/caretakers continue to breast feeding more than usual in cases of diarrhea. These have a positive attitude towards breast feeding as opposed to those who stop, thinking that increases diarrhea intensity.

#### CONCLUSION

The following conclusions were drawn from the findings. Majority of caretakers do not know to deal with/treat diarrhea at home, so diarrhea remains a menace in most communities and many use anti-microbial agents alone without thinking of oral fluids. Continued breastfeeding and giving extra feeds during diarrhea is however, widely practiced by caretakers. Majority of caretakers at least know about O.R.S every after are able to prepare it and administration of O.R.S every often episode of diarrheal attack carried out by

majority of caretaker and proportion of caretakers do not use calibrated measuring aids to help them administer the correct quantities of O.R.S instead they use ordinary house hold utensils. Lack of health seeking behavior is not the major problem for childhood diarrhea fatality, because most caretakers always took children to health units where even diarrhea worsened. Caretakers have positive attitude towards medical management of diarrhea than traditional treatment, including use of herbs.

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