

Evaluation of the Knowledge, Attitude and Practices of Nurses in the Management of Diarrhea in Children at Kampala International University Teaching Hospital, Uganda.

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**ABSTRACT**

The study was to assess the knowledge, attitude and practice of nurses on the management of diarrhea among children under five years of age on Pediatric ward at KIU- TH. The study design was descriptive and cross sectional in nature involving collection of information using questionnaires and enrolled 30 respondents (nurses) who were selected using a simple random sampling procedure. Majority responded on the three clinical types of diarrhea, 10(33%) indicated acutewaterystool that lasts several hours or days, 3(10%) disclosed acutebloodydiarrhea also called dysentery and 17(57%) disclosed persistent diarrhea, which lasts 14 days or longer, 15(50%) disclosed that health units had no improved sanitation, 14(47%) agreed that there was improved sanitation and 1(3%) was not sure. 28(94%) agreed that mothers are advised to use exclusive breastfeeding for the first six months 1(3%) disagreed, 1(3%) were not sure, 25(83%) agreed that nurses encourage good personal and food hygiene 3(10%) disagreed and 2(7%) were not sure. Lastly, 15(50%) agreed that nurses educate mothers and 15(50%) disagreed. The practice of nurses on the management of diarrhea among children under five years of age on Pediatric ward at KIU - TH indicated that improved sanitation like hand washing with soap, exclusive breastfeeding for the first six months, good personal and food hygiene reduce the occurrence of diarrhea, and educating mothers as they received health tips to control diarrhea diseases.

**Keywords:** Disagree, Diarrhea, Children, Pediatric, Breastfeeding.

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**INTRODUCTION**

This chapter presents the background information, statement of the problem, purpose of the study, objectives of the study, research questions, and justification of the study [1, 2, 3, 4, 5]. Worldwide, Diarrhea is a common disease and is one of the major determinants of childhood morbidity and mortality [6,7,8, 9]. Diarrhea is one of the main causes of death in children under 5 years of age in India [1, 10, 11, 12]. Roughly 1.5 million children die due to diarrhea and diarrhea related diseases every year. The Government of India through its National CDD Programme plans to reduce the infant mortality rate from 95 to 50 and pre-school mortality from 41.2 to 10 per 1000 by the year 2000 A.D. The CDD programme which was started in 1986 and covered 90 districts during 1986-87 [13, 14, 15, 16]. During the period 1987-88 and 1988-89, another 90 and 120 districts respectively were covered and by 1989-90 the whole country was covered under this

programme [1]. Khan [2], disclosed that diarrhea can last several days, and can leave the body without the water and salts that are necessary for survival, mainly characterized by skin pinch goes slowly ( $\geq 2$  seconds), with restlessness, irritability, patients who drink eagerly and with thirst. Most people who die from diarrhea actually die from severe dehydration and fluid loss [17, 18, 19, 20]. Children who are malnourished or have impaired immunity as well as people living with HIV are most at risk of life-threatening diarrhea [21, 22, 23, 24, 25]. Diarrhea is usually a symptom of an infection in the intestinal tract, which can be caused by a variety of bacterial, viral and parasitic organisms [3]. Infection is spread through contaminated food or drinking water, or from person-to-person as a result of poor hygiene from people of different social - economic backgrounds. In Africa, Diarrheal disease remains a leading cause of mortality and morbidity of children in Sub-Saharan Africa and from

INOSR Scientific Research 9(1):25-37, 2023. different backgrounds [25, 26, 27]. In Ethiopia, according to [1], Diarrhea disease affects about 13.3% of under five children. Of those, 3% had bloody Diarrhea in the two weeks before the survey [23, 24, 25, 26, 27]. Diarrhea was most common among children age 6-23 months (23-25 percent). Gupta and Sarker, [4], explained how diarrhea prevalence is highest among children residing in households that drink from unprotected wells 18%, those residing in rural areas (14%). The Integrated Management of Childhood Illness (IMCI) guidelines advise the use of ORT, along with continued feeding, and zinc for appropriate Diarrhea case management. In underdeveloped countries, acute gastroenteritis involving Diarrhea is the leading cause of mortality in infants and children younger than 5 years of age. Diarrhea is the most prevalent pediatric disease and cause of death in children under five years-of-age in developing -countries [5]. Moreover, Diarrheal diseases cause serious economic problems for developing countries. The leading cause of death from acute Diarrhea is the loss of water and essential minerals, which can be compensated in most cases by an oral rehydration solution (ORS) [3]. In Ethiopia, Diarrhea is the major killer of children and thus is a serious public health problem. An estimated 73,700 children under the age of five die each year due to Diarrhea. This accounts for an estimated 20% of the deaths among children under-five years of age in the country [6]. Diarrhea is a major public health problem in Uganda as evident from its increasing incidence and fatality. Unlike other diseases, diarrhea is generally not considered as an illness and thus most diarrhea cases are not are not managed at all or managed at home through traditional approaches [7]. About one half of children below five years are not taken to any healthcare centre and about one third of the children with diarrhea do not receive any treatment at all. The remaining a third of children with diarrhea are the ones who get hospital care [6]. In Uganda, a policy statement was formulated for the control of Diarrheal diseases (CDD) program in 1993 with benchmarks through 1997. In

1997, the CDD merged with other program to become the Integrated Management of Childhood Illnesses (IMCI) strategy [8]. In 2004, WHO and UNICEF released a revised recommendations aimed at dramatically reducing the number of child deaths due to diarrhea. These new recommendations take into account significant advances; new formulation of ORS containing low concentration of salt and glucose and the use of zinc Sulphate in addition to rehydration therapy in management of diarrheal diseases [7]. Since 2010, Uganda has adopted several initiatives to increase access to diarrheal treatment for children [9]. These include; the national diarrhea and pneumonia scale up plan, re-classification of Zinc Sulphate from prescription only to over-the-counter product, development of locally produced ORS/Zinc and introduction of Rotavirus vaccine. The government of Uganda and its stakeholders has encouraged and financed special trainings of all health workers on diarrhea and nutrition [8].

#### **Statement of the problem**

Diarrhea has remained a major Public Health Problem and a common symptom on the Pediatric ward and general Health Care Centers national wide despite the great effort employed so far. A 2013 report by the Agency for Healthcare Research and Quality (AHRQ) describes several AHRQ-funded studies on the relationship between hospital nurse performance and the management of diarrheal diseases. In Uganda diarrhea mortality rate remains high [10]. Currently, in areas of northern eastern and south eastern Uganda, diarrhea among infants below 5 years is at an increase of 4% per year, and incidence is increasing at 3% annually [10]. In Uganda, the primary caregivers display poor perception about the signs of dehydration, dysentery and management of diarrhea. The attitude of parents and caretakers towards the disease management vary with their perception about its seriousness especially on young children and health care-seeking practices of the primary caretakers of children < 5 years of age. Data from [10], showed that an increase in knowledge and practice of nurses in the management of diarrhea in

INOSR Scientific Research 9(1):25-37, 2023. children below 5 years over the past decade; it was 13 % in 2000 to 22 % in 2005 and 32 % in 2011. However, almost one child in every two (49 %) were offered less fluid than usual or were given no fluids at all; 28% were offered somewhat less, 13% were offered much less, and 7% of children were offered no fluids at all. Only 10% of children with diarrhea were given increased liquids and continued feeding as recommended, while 25 % of children with diarrhea continued to be fed and given ORT. Thus, there is need to increase the knowledge, attitude and practice of nurses on the management of diarrhea among children under five years of age, which may reduce new cases and control the existing cases to effectively manage diarrhea in children below five years.

#### **Purpose of the study**

To assess the knowledge, attitude and practice of nurses on the management of diarrhea in children below five years of age on Pediatric ward at Kampala International University Teaching Hospital.

#### **Specific objectives**

- i. To determine the Knowledge of nurses on the management of diarrhea in children below five years of age on Pediatric ward at Kampala International University Teaching Hospital.
- ii. To determine the attitude of nurses on the management of diarrhea in children below five years of age on Pediatric ward at Kampala International University Teaching Hospital.
- iii. To assess the practice of nurses on the management of diarrhea in children below five years of age on Pediatric ward at Kampala International University Teaching Hospital.

#### **Research Questions**

- What is the Knowledge of nurses on the management of diarrhea in

children below five years of age on Pediatric ward at Kampala International University Teaching Hospital?

- What is the attitude of nurses on the management of diarrhea in children below five years of age on Pediatric ward at Kampala International University Teaching Hospital?
- What is the practice of nurses on the management of diarrhea in children below five years of age on Pediatric ward at Kampala International University Teaching Hospital?

#### **Justification**

- ✚ The study may help the ministry of health Uganda, Kampala International University Teaching Hospital and Bushenyi district in providing physical solutions to prevent the problem of diarrhea among infants.
- ✚ The findings of this study may be used by community health educators generate a new information on the management of diarrhea in children below five years of age through integrating necessary innovations into the academic curriculum in the region.
- ✚ The study findings may provide information on key problems facing nurses in the hospital and add references for further researchers in community health who may like to carry out further studies in the related area.
- ✚ This study may also help me obtain my Diploma of Nursing sciences at the end of the course.

### **METHODOLOGY**

#### **Study design**

The study was descriptive and cross sectional in nature involving collection of information concerning knowledge, attitude and practice of nurses on the management of diarrhea among children under five years of age on Pediatric ward at Kampala International University Teaching Hospital, using questionnaires,

while doctors and nurses will be interviewed.

#### **Study setting**

The study was carried out in Kampala International University Teaching Hospital and is one of the biggest hospitals in Uganda located in Ishaka Town along Bushenyi Kasese Road, 5Km away from Bushenyi District Headquarters. Ishaka is

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INOSR Scientific Research 9(1):25-37, 2023. found in Ishaka - Bushenyi Municipality, Bushenyi District South Western Region of Uganda - East Africa. It is a teaching hospital found at the western campus of Kampala International University, one of the leading universities in Uganda. Pediatric ward is one of the departments of KIU-TH, which specializes in care of children below 12 years of age. Besides the pediatric ward, there are other wards like Obstetrics, Gynecology, Medical, Surgical, Psychiatric and Accidents and Emergency wards. It offers all outpatient services including antenatal care, immunization, laboratory services, radiology and so many others. The hospital has got a structural administration which includes medical staff and non-medical staff.

#### **Study population**

The study was carried out among nurses and doctors in the pediatric ward where children below the age of 5 years who were admitted. Also, mothers were consulted to give information about their children. It enrolled a total number of 30 respondents from a total population of about 120 mothers in the pediatric ward.

#### **Sample size determination**

To arrive at the sample size the following formula of [11] will be used in calculating the population

$$n = \frac{N}{1 + N(e)^2}$$

Where n = Sample size

N = Population

e = Margin of error @ 0.05

$$n = \frac{35}{1 + 35 \times 0.05^2} = 35 = 30$$

Thus, 30 respondents were the required population according to the formula.

#### **Sampling procedure**

The study employed simple random sampling technique during data collection, by randomly selecting nurses, doctors and mothers of the children suffering from diarrhea. This helped to select respondents irrespective of their background. This study only catered for nurses, doctors and mothers of the children suffering from diarrhea at KIU-TH, who were ready to consent, were included in the study.

#### **Inclusion criteria**

Nurses at KIU-TH who consented to participate in the study were included.

#### **Dependent variable**

Delivery of quality nursing care in the management of diarrhea among children below 5 years.

#### **Independent variable**

Factors affecting the delivery of quality nursing care.

#### **Research instruments**

A pre-tested questionnaire with both open and close ended questions were designed and administered to the selected respondents. To collect data with the questionnaire, the researcher conducted a face-to-face interview with the selected respondents and he filled in the responses from respondents who could not know how to read and write. Those who were able to read and write were allowed to fill their responses in the questionnaire themselves.

#### **Data collection procedures**

After getting permission from the university, the researcher administered questionnaires to selected respondents, who were assisted by getting clarifications from the researcher to fill in the questionnaires. Interpretation, coding and analysis of data followed, before data was presented in form of a report, which were presented.

#### **Data management**

The researcher took notes against each question asked and answered respectively in their corresponding orders. Two sampling techniques of eliminating extraneous variables and holding factors constant were used so as to reduce substantially the effect that extraneous variables would have on the dependent variable. This objectively focused on the relevant information leaving out the irrelevant ones.

#### **Data Analysis**

After data collection, the researcher analyzed, interpreted and coded responses according to the questions asked to ensure completeness, uniformity, accuracy and consistency of all questions asked. The analyzed data was then presented in form of tables and graphs,

which formed a basis for discussion, conclusion among others.

#### **Ethical considerations**

Clearance was obtained from institutional ethical review committee Board of KIU - Western Campus. Also, permission was sought from medical superintendents of

KIU-TH, and the in-charge Pediatrics department. In the process of data collection, consent was obtained from the participants as enrolment into the study, where privacy was ensured using private codes known only by the researcher.

### **RESULTS**

**Table 1: Showing demographic data of the respondents**

<b>Variables</b>	<b>Frequency(N=30)</b>	<b>Percentage (%)</b>
<b>Age</b>		
18-35	10	33%
36-59	20	67%
<b>Tribe</b>		
Munyankole	20	66%
Mukonjo	2	7%
Mukiga	5	17%
Others	3	10%
<b>Education levels</b>		
Primary	14	46%
Secondary	8	27%
Graduate	-	-
Other	8	27%
<b>Religion</b>		
Pentecostal	10	33%
Catholics	10	33%
Moslem	3	10%
SDA	7	24%

**Source: primary**

From table 1 above, according to the figure above, majority of the mothers who had their children admitted for diarrhea were aged between 18-35 years presented by 20(66.7%), and 10(33.3%) of the mothers who had their children admitted were aged between 35-59 years. Responses according to tribe indicated that majority of respondents were the Banyankole with 20(66%), followed by the Bakiga with 5(17%). The least numbers came from other tribes 3(10%), as well as Bakonjo with 2(7%) of the total number of respondents. According to religion, majority of the respondents were Pentecostals, presented

by 10(33%) as well as Catholics 10(33%) of the total number of respondents. The least number of respondents by religion were Moslems with 3(10%) and other religions which included SDA's and born again with 7(24%).

According to education level, majority of the respondents 14(46%) had studied up to primary education level, followed by 8(27%) who had studied up to secondary school. None of the respondents was a graduate, while 8(27%) had other levels like early primary school drop outs and no education level.

**Table 2: showing knowledge of nurses in the management of diarrhea among children below five years on pediatric ward at KIU-TH**

Variables	Frequency(N=30)	Percentages (%)
<b>Types of diarrhea</b>		
Acute watery diarrhea	8	27%
Acute bloody diarrhea	3	10%
Persistent diarrhea	12	40%
All types of diarrhea	7	23%
<b>Types of dehydration</b>		
Dehydration	12	40%
Some dehydration	10	33%
Severe dehydration	5	17%
All types of dehydration	3	10%
<b>List, at least 6 measures of prevention diarrhea</b>		
None	5	17%
1 - 3	8	27%
4 - 6	10	33%
All the above	7	23%

**Primary source**

In the table 2, according to the respondents 8(27%) indicated that there was acutewaterydiarrhea which lasts several hours or days, and includes cholera, followed by 3(10%) who disclosed acute bloody diarrhea also called dysentery and majority of 12(40%) disclosed persistent diarrhea, lasts 14 days or longer and 7(23%) disclosed all the above. Views from 5(17%) disclosed that is severe dehydration as type of dehydration, majority of 12(40%) who disclosed dehydration followed by 10(33%) who disclosed some dehydration and 3(10%)

who disclosed all the above. The key measures to prevent diarrhea are as follows: (1). Safe drinking-water, (2). Use of improved sanitation, (3) Ensure hand washing with soap. (4) Exclusive breast feeding for the first six months of life, (5) Ensure good personal and food hygiene and lastly, (6). Health education about how infections spread. According to respondents of 5(17%) disclosed none of the above, where by majority of 10(33%) disclosed 4-6 followed by 8(27%) who disclosed of 1-3 and then 7(23%) disclosed of all the above.



**Table 3: Showing different ways how nurses manage of diarrhea**

Variables	Frequency (N-30)	Percentage (%)
<b>Rehydrate with ORS solution</b>		
Agree	20	66%
Disagree	5	17%
Not sure	5	17%
<b>Weather nutrient-rich foods the vicious cycle of malnutrition and diarrhea</b>		
Agreed	28	93%
Disagreed	2	7%
Not sure	-	-
<b>Nurses were consulting a health professional</b>		
Agreed	15	50%
Disagreed	10	33%
Not sure	5	17%

**Source: primary**

From the table 3 above, according to respondents, majority 20(66%) agreed that many nurses use rehydration with oral rehydration salts (ORS) solution, while 5(17%) disagreed and disclosed that nurses use other methods of controlling dehydration like encouraging breast feeding, and 5(17%) were not sure. Responses from 25(83%) agreed that Nutrient - rich foods the vicious cycle of malnutrition and diarrhea can be broken

by continuing to give nutrient rich foods including breast milk, while 5(17%) disagreed. Views from 15(50%) agreed that nurses are consulting a health professional, in particular for management of persistent diarrhea or when there is blood instool or if there are signs of dehydration, while 10(33%) disagreed and disclosed that nurses treat according to the conditions of the patient. Lastly, 5(17%) were not sure.

**Table 4: showing the practice of nurses in the management of diarrhea among children under five years on pediatric ward at KIU-TH**

Variables	Frequency (N-30)	Percentage (%)
<b>Whether nurses provide safe drinking water</b>		
Agreed	28	93%
Disagreed	-	-
Not sure	2	7%
<b>No improved sanitation</b>		
Agreed	14	47%
Disagreed	15	50%
Not sure	1	3%
<b>Whether mothers are advised on exclusive breast feeding</b>		
Agreed	28	94%
Disagreed	1	3%
Not sure	1	3%
<b>Whether nurses encourage on personal and food hygiene</b>		
Agreed	25	83%
Disagreed	3	10%
Not sure	2	7%
<b>Whether nurses educate mothers about infections spread</b>		
Agreed	15	50%
Disagreed	15	50%
Not sure	-	-

**Source: primary**

From the table 4 above, on whether nurses of ten provides drinking-water to children suffering from diarrhea, majority of 28(93%) agreed that nurses provided safe drinking water to children suffering from diarrhea to help in disease control, none disagreed and only 2(7%) were not sure. According to majority of respondents, 15(50%) they disagreed and disclosed that in the health units there was no improved sanitation to reduce cases of diarrhea a like handwashing with soap, because they bought and stored their own soap and water, while 14(47%) agreed that in the

health units, there were improved sanitation to reduce cases of diarrhea like hand washing with soap, and only 1(3%) were not sure. Responses from 28(94%) agreed that mothers are advised to use exclusive breast feeding for the first six months of child's life. These disclosed that mainly, doctors and nurses were advised to use exclusive breast feeding, which would help them to control diarrhea, 1(3%) disagreed and also 1(3%) were not sure. According to 25(83%) of the respondents, they agreed that nurses encourage good personal and food hygiene so as to reduce



the occurrence of diarrhea. This was because it would reduce the rate of poor hygiene which causes diarrhea, while 3(10%) disagreed and only 2(7%) were not sure. Responses from 15(50%) of the respondents agreed that nurses educate mothers about how infections are spread.

### **Socio-demographic characteristics**

According to age, majority of the mothers who had their children admitted for diarrhea were aged between 18-35 years 20(66.7%), 10(33.3%) were aged between 35-59 years. Responses according to tribe indicated that majority were the Banyankole with 20(66%), Bakiga with 5(17%), other tribes were 3(10%) and the Bakonjo with 2(7%), while on religion, majority were Pentecostals 10(33%), Catholics 10(33%), Moslems with 3(10%) and other religions which included SDA's and born gains with 7(24%). On education level, majority 14(46%) had studied up to primary education level, 8(27%) had studied up to secondary school, while 8(27%) had other levels like early primary school drop outs and no education level. This agrees with [12], who disclosed that mortality related to diarrhea is more common in 6 months to 1 year age, more so in a malnourished child among different backgrounds. Also, [3], disclosed that infection is spread through contaminated food or drinking water, or from person-to-person as a result of poor hygiene from people of different social - economic backgrounds. In Africa, Diarrhea disease remains a leading cause of mortality and morbidity of children in Sub-Saharan Africa and from different backgrounds.

### **Knowledge of nurses on the management of diarrhea in children below five years of age on Pediatric ward at KIU-TH**

Views on the clinical types of diarrhea indicated the clinical types of diarrhea 8(27%) indicated that there was acute watery diarrhea which lasts several hours or days, and includes cholera, 3(10%) disclosed acute bloody diarrhea also called dysentery and 12(40%) disclosed persistent Diarrhea, which lasts 14 days or longer and 7(23%) disclosed all types of diarrhea. Views from 5(17%) disclosed that is severe dehydration as type of

These disclosed that they received health tips to control numerous diseases, though some nurses were harsh on them, followed by 15(50%) who disagreed and they disclosed that nurses did not give information to mothers on the infections and how they are spread.

## **DISCUSSION**

dehydration, majority of 12(40%) who disclosed dehydration followed by 10(33%) who disclosed some dehydration and 3(10%) who disclosed all the above. The key measures to prevent diarrhea are as follows: (1). Safe drinking-water, (2). Use of improved sanitation, (3) Ensure hand washing with soap. (4) Exclusive breast feeding for the first six months of life, (5) Ensure good personal and food hygiene and lastly, (6). Health education about how infections spread. According to respondents of 5(17%) disclosed none of the above, where by majority of 10(33%) disclosed 4-6 followed by 8(27%) who disclosed of 1-3 and then 7(23%) disclosed of all the above. This agrees with [13], who disclosed that globally, diarrhea is the leading cause of death (after pneumonia). Nurses' knowledge on management of diarrhea especially two signs of lethargy/unconsciousness, children who are unable to drink, or drink poorly with restlessness and irritability. Views on different measures of treating diarrhea in child under 5 years indicated that 28(93%) agreed that there are different measures of treating diarrhea in children under 5 years, while 2(7%) disagreed, while the key measures to prevent diarrhea are as follows, safe drinking-water, use of improved sanitation, ensure hand washing with soap, exclusive breast feeding for the first six months of life, ensure good personal and food hygiene and lastly, and health education about how infections spread. This agrees with [14], who noted that there was a relationship between knowledge and management practice adopted by nurses like access to safe drinking water, improved sanitation and hand washing with soap.

**Attitude of nurses on the management of diarrhea in children below five years of age on Pediatric ward at KIU-TH**

Views on different ways of managing diarrhea indicated that 28(93%) agreed that there are different ways of managing diarrhea, and 2(7%) disagreed, while on whether many nurses use rehydration with oral rehydration salts (ORS) solution, majority 20(66%) agreed that many nurses use rehydration with oral rehydrationsalts (ORS) solution, 5(17%) disagreed and 5(17%) were not sure. 25(83%) agreed that Nutrient - rich foods the vicious cycle of malnutrition and diarrhea can be broken by continuing to give nutrient rich foods including breast milk. Views on whether nurses are consulting a health professional, in particular for management of persistent diarrhea, 15(50%) agreed that nurses are consulting a health professional, in particular for management persistent diarrhea or when there is blood instool or if there are signs of dehydration, 10(33%) disagreed that nurses treat according to the conditions of the patient and 5(17%) were not sure.

This agrees with [15], who disclosed that Oral Rehydration Solution (ORS) being the leading treatment of diarrhea as well as consulting a health professional, in particular for management of persistent diarrhea and effective therapeutic intervention for prevention and treatment of dehydration has emerged as a magic potion in 20th century in management of diarrhea.

In conclusion, on the knowledge of nurses in the management of diarrhea among children under five years of age on Pediatric ward at KIU - TH which included cholera, acute bloody diarrhea also called dysentery and persistent diarrhea, which lasts 14 days or longer. The degree of dehydration is rated on a scale of three, with least two signs of lethargy/ unconsciousness, sunken eyes, children and unable to drink, and they drink-poorly, skin pinch goes back very slowly ( $\geq 2$  seconds), restlessness, irritability. Other

**Practice of nurses on the management of diarrhea in children below five years of age on Pediatric ward at KIU - TH**

Findings on whether nurses often provide safe drinking-water to children suffering from diarrhea, 28(93%) agreed that nurses provided safe drinking water to children suffering from diarrhea to help in disease control 2(7%) were not sure whether there was provision of safe drinking water on the health facility. On whether in health units, there are improved sanitation to reduce cases of diarrhea like handwashing with soap, 15(50%) they disagreed and disclosed that in the health units, there was no improved sanitation to reduce cases of diarrhea like handwashing with soap, 14(47%) agreed and 1(3%) was not sure. 28(94%) agreed that mothers are advised to use exclusive breastfeeding for the first six months of child's life which would help them to control diarrhea. Also, 25(83%) agreed that nurses encourage good personal and food hygiene so as to reduce the occurrence of diarrhea, 3(10%) disagreed and 2(7%) were not sure. Lastly, views on whether nurses educate mothers about how infections spread, 15(50%) agreed that nurses educate mothers as they received health tips to control numerous diseases, and 15(50%) disagreed. This agrees with [16], who disclosed that mothers are advised to use exclusive breastfeeding which would help them to control diarrhea, nurses should encourage good personal and food hygiene to reduce the occurrence of diarrhea, educate mothers about how infections.

**CONCLUSION**

signs of dehydration as drinks eagerly, thirsty. There were different measures of treating diarrhea in children under 5 years, which included access to safe drinking-water, improved sanitation, and hand washing with soap. Also, exclusive breastfeeding for the first six months, good personal and food hygiene and health education about how infections are spread. There were different ways of managing diarrhea which included the use of rehydration with oral rehydration salt (ORS) solution, using Nutrient - rich foods

the vicious cycle of malnutrition and consulting a health professional for management of persistent diarrhea or when there is blood in stool or if there are signs of dehydration. The practice of nurses in the management of diarrhea among children under five years of age on Pediatric ward at KIU - TH indicated that nurses often provide safe drinking-water to children suffering from diarrhea, improved sanitation to reduce cases of diarrhea like handwashing with soap, exclusive breastfeeding for the first six months, nurses encourage good personal and food hygiene so as to reduce the occurrence of diarrhea, and nurses educate mothers as they received health tips top control numerous diseases.

### Recommendations

Based on the finding and conclusion of this study, the following recommendations were drawn:

- The health workers at the various hospitals and health centers should strengthen their teachings on the management practices of mothers regarding childhood diarrhea. Since these mothers varied in their responses in all the management practices.
- More scientific research should be conducted on factors that hinder the management of

childhood diarrhea by mothers. This is essential for developing rational and effective intervention to the problem.

- All methods of Oral Rehydration Salts should be uniformly taught to mothers so that they can have a variety of choice based on conveniences to them.
- Since there was significant difference in the knowledge and management practiced of mothers regarding childhood diarrhea according to level of education. The state government should provide free and compulsory education for both younger and older mothers to enable them acquire education up to tertiary level so as to widen their scope in all spheres of life including health issues such as childhood diarrhea.

### Suggestions for further studies

- ✚ Research work should be concentrated on the demographic factors that facilitate the management practices of mothers regarding childhood diarrhea.
- ✚ Studies should also be conducted to determine cultural factors that predispose mothers to poor management of childhood diarrhea.

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