

KNOWLEDGE, ATTITUDE, AND PRACTICES TOWARDS ORAL REHYDRATION THERAPY IN THE MANAGEMENT OF DIARRHEA AMONG CARETAKERS OF CHILDREN BELOW 5 YEARS IN SOROTI REGIONAL REFERRAL HOSPITAL SOROTI DISTRICT. A CROSS-SECTIONAL STUDY.

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ABSTRACT

Aim:

The study aimed to assess the knowledge, attitude, and practices towards oral rehydration salt in managing diarrhea among caretakers of children below 5 years in Soroti Regional Referral Hospital, Soroti district.

Methodology:

The study employed a descriptive cross-sectional study design with a simple random sampling technique. Data was extracted from a sample of 60 respondents using semi-structured questionnaires written in the English language and analyzed manually using tally sheets, entered in the Excel computer program to generate graphs, tables, and pie charts.

Results:

All (100%) of the respondents had heard of diarrhea, a majority (95%) of the respondents knew how to define diarrhea, most (63%) of the respondents reported poor hygiene as the major cause of diarrhea, and a majority (94%) of the respondents had heard of ORT, a majority (87%) of the respondents obtained their information on ORT from medical workers, most (69%) of the respondents could not detect a dehydrated child.

Almost all (98%) of the respondents believed that diarrhea is a serious condition and the majority (73.3%) of the respondents thought ORT is good for managing diarrhea in children below 5 years.

Most (40%) of the respondents did not continue to breastfeed their children, most (47%) gave solid foods to their children, only (58%) gave ORS in treatment of diarrhea, and only (42%) said they took their children to the health facility.

Conclusion:

Caretakers exhibited pleasant knowledge and study aimed at the management of diarrhea but poor practices were noticed which exposed their children to the effects of diarrhea for example dehydration and malnutrition.

Recommendations:

Soroti Regional Referral Hospital should intensively educate the caretakers on the importance of initiating the children on ORT in time, as it will help prevent the effects of diarrhea like dehydration and malnutrition.

Keywords: Knowledge, Attitude, Practices, Oral rehydration Salt, Diarrhea

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INTRODUCTION.

The World Health Organization (WHO) defines diarrhea as the passage of three or more watery stools in 24 hours.

Globally, there are nearly 1.7 billion cases of childhood diarrheal diseases every year with diarrhea killing around

525000 children under five years of age and Uganda contributed 7000 (8%). In low-income countries, children under three years old experience on average three episodes of diarrhea every year. Each episode deprives the child of the nutrition necessary for growth. As a result, diarrhea is a major cause of malnutrition and malnourished children are more

likely to fall ill from diarrhea. The most severe threat posed by diarrhea is dehydration. During diarrheal episodes, water and electrolytes (sodium, chloride, potassium, and bicarbonate) are lost through liquid stool, vomit, urine, and breathing. Dehydration occurs when these losses are not replaced (WHO, 2017).

A report from CIDRAP (2018), revealed that out of 55 of the 57 countries (island nations and Seychelles were excluded) the highest diarrhea-related case fatality was in Lesotho (18 cases per 10000 children below 5 years, 95% credible interval (12 to 25) Mali had (17, 12 to 24) Benin (16, 11 to 21) and Nigeria (16, 11 to 12).

In Africa, every under five child experiences five episodes of diarrhea per year, and around 800000 children die of diarrhea and dehydration each year. Sub-Saharan Africa is the region where high rates of child mortality are reported (Gazi, 2015). A study that was conducted in the East African countries of Burundi, Rwanda, and Tanzania revealed that the prevalence of acute diarrhea was 24.8, 13.1, and 13.9, respectively (Tareke AA, 2022).

In Uganda, diarrhea is among the top four causes of morbidity in infants and young children. The Uganda demographic and health survey of 2016 revealed that the prevalence of diarrhea among children of less than 5 years in Uganda was 20%. In 2017, diarrheal disease deaths reached 6.41% of the total deaths making the country ranked 27th worldwide.

According to WHO (2017), diarrhea is usually a sign of infection in the intestinal tract, which can be caused by a variety of bacterial, viral, and parasitic organisms. Infection is spread through

Contaminated food, drinking water, or from person to person due to poor hygiene. Interventions to prevent diarrhea
Soroti Regional referral Hospital, Soroti district.

METHODOLOGY.

Study design.

The study adopted a cross-sectional descriptive study design for both qualitative and quantitative data. This method was selected because it was excellent for the measurement of characteristics of large populations and therefore time-saving.

Study setting.

The study was conducted at Soroti Regional Referral Hospital. It's located along Soroti- lira highway, Soroti city west in Soroti district, in the eastern region of Uganda. The hospital has a bed capacity of 1788 beds as of 2022. The hospital services in the OPD, IPD, pediatric department, surgery, eye care, dental, radiography, and gynaecology.

It is the referral hospital for the districts of Serere, Amuria, Katakwi, Kumi, and Ngora. In terms of time, the study was conducted for one month starting from 20th March to 12th April 20, 2023.

Study population.

including safe drinking water, use of improved sanitation, and hand washing with soap can reduce disease risk. The (WHO) and (UNICEF) recommend ORS and zinc as essential to the clinical treatment of acute diarrhea.

Despite the MOH increasing accessibility to ORS in government facilities, only 47% of children receive the ORT (Leku, 2020).

General Objective.

- *To determine the knowledge, attitudes, and practices towards oral rehydration therapy in the management of diarrhea among caretakers of children below 5 years in Soroti Regional Referral Hospital, Soroti district.*

Specific objectives.

- *To determine the knowledge of oral rehydration therapy in the management of diarrhea among caretakers of children below 5 years in Soroti Regional Referral Hospital, Soroti district.*
- *To determine the attitude towards oral rehydration therapy in the management of diarrhea among caretakers of children below 5 years in Soroti Regional Referral Hospital, Soroti district.*
- *To determine the practices towards oral rehydration therapy in the management of diarrhea in children below 5 years in*

The study targeted caretakers of children under the age of five years with diarrheal cases at OPD in SRRH, Soroti District.

Sample size determination.

The sample size for the cross-sectional study was determined using the formula below:

QR/T (Button, 1965)

Where,

Q= Total number of days spent in the data collection

R=Maximum of respondents per day

T=maximum time taken by the interviewer.

Therefore,

Q = 10days

R = 6respondents

T = ½ hours

QR/T = 10X6/1/2

60/1/2 = 120 respondents

The sample size was meant to be 120 but because of limited time and finance, the researcher used 60 respondents.

Sampling technique.

Simple random sampling was used to obtain the sample. It entailed the caretakers of children below 5 years in the hospital. The reason for choosing this method is because it saves time, eliminates bias and each member has an opportunity to be selected.

Inclusion criteria.

The study included caretakers with children below five years who were present within the hospital during the period of data collection and consented voluntarily.

Study variables.

Independent variables were knowledge attitude and practices of caretakers while the independent variable was oral rehydration therapy in the management of diarrhea.

Data collection method.

Data was collected using a semi-structured questionnaire since not all patients could interpret the questions. The questionnaire was divided into the caretaker's demographic data, knowledge, attitude, and practice questions. The questionnaires were administered to patients upon being informed about the study. The reason for using questionnaire as a method of data collection as they are easy to use and saves time during data collection.

Pretesting of the questionnaire.

The researcher pretested the questionnaire at a different facility that is Morapesuru Health Center III in Soroti to determine whether it suits the research and is acceptable. After the researcher proceeded with the data collection at Soroti regional referral hospital in Soroti district.

Data collection procedure.

An introductory letter was obtained from the research ethics committee of Kampala School of Health Sciences, upon clearance by the research ethics committee, the researcher introduced herself to the in charge of the pediatric ward who later identified caretakers of children with diarrhea. The researcher persuaded the caretakers to participate in the study.

Data management.

During data collection, there was close monitoring and questionnaires were inspected to check for errors of omission and commission. Data was stored in a double locked cupboard and the key was only accessed by the researcher.

Data analysis and interpretation.

Descriptive analysis was done on the data that was collected. Information that was obtained from the questionnaires was checked and verified manually. Data was accomplished by use of a suitable statistical package that is to say the analytical software statistical package of social sciences (SPSS). The SPSS software was utilized to generate different descriptive statistics depending on the variable under consideration and the specific study objectives.

Ethical considerations.

A recommendation letter was obtained from the Kampala School of Health Science to be able to obtain permission from the Soroti regional referral hospital to be able to carry on the research. During data collection, consent was sought from the respondents and there was confidentiality of the information to be collected by storing data in double locked cupboard and key only accessed by the researcher.

DATA ANALYSIS AND PRESENTATION.

Social demographic characteristics of the respondents

Table 1: Shows the distribution of respondents according to their social-demographic information. (N=60)

Variables	categories	Frequency	Percentage (%)
Age of the child (in months)	0-12	18	30
	13-24	11	11.7
	25-36	32	53.3
	37-48	06	10
	49-59	03	5
Sex of the child	Male	18	30
	Female	42	70
Age of the respondents in years	18-25	20	33.3
	26-35	32	53.3
	36-40	02	3.3
	41-50	06	10
Marital status of the respondents	Married	38	63.3
	Not married	16	26.7
	Divorced	04	6.7
	widowed	02	3.3
Occupation of the respondents	Un employed	08	13.3
	self employed	46	76.6
	peasant	16	26.7
Education levels	Primary	22	36.7
	Secondary	34	56.7
	Tertiary	04	6.7

From Table 1, the majority (70%) of the respondent's children were females whereas the minority (30%) were male by sex. The study revealed that most (53.3%) of the respondent's children were in the age bracket of (25-36 months) whereas the least (5%) were in the age bracket of (49-59) months.

The study discovered that the majority (63.3%) of the respondents were married whereas the minority (3.3%) were widowed. the majority (76.6%) of the respondents were self-employed whereas the minority (13.3%) were employed.

In regards to the education levels of the caretakers, more than half (56.7%) of the respondents had attained a secondary level of education whereas the least (6.7%) had attained tertiary.

Knowledge of caretakers towards oral rehydration therapy in the management of diarrhea.

Table 2: Shows the distribution of respondent according to whether they had ever heard of diarrhea and able to define it correctly.

(N=60)

Response	Frequency (f)	Percentage (%)
Yes	57	95
No	03	5
Total	60	100

Regarding whether the respondents had heard of diarrhea, all (100%) had heard of it. From table 2, the majority (95%) of the respondents defined it

correctly as the passage of watery stool more than three times in 24hours while the minority (5%) defined it as when a child has frequent passage of faeces.

Table 3: Shows the distribution of respondents according to their knowledge about the causes of diarrhea.

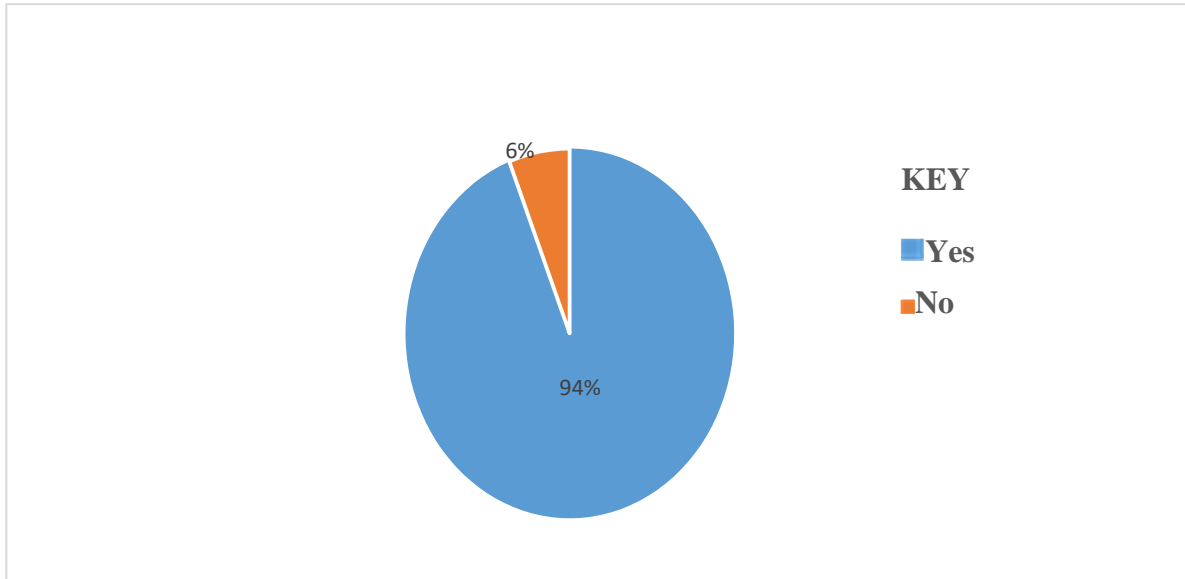
N=60

Response	Frequency(f)	Percentage (%)
Poor hygiene	38	63.3
Contaminated water and food	14	23.3
Teething	07	11.6
I don't know	01	1.6

From table 3, most (63.3%) of the respondents reported poor hygiene as the major cause of

diarrhea whereas the least (1.6%) did not know what causes diarrhea.

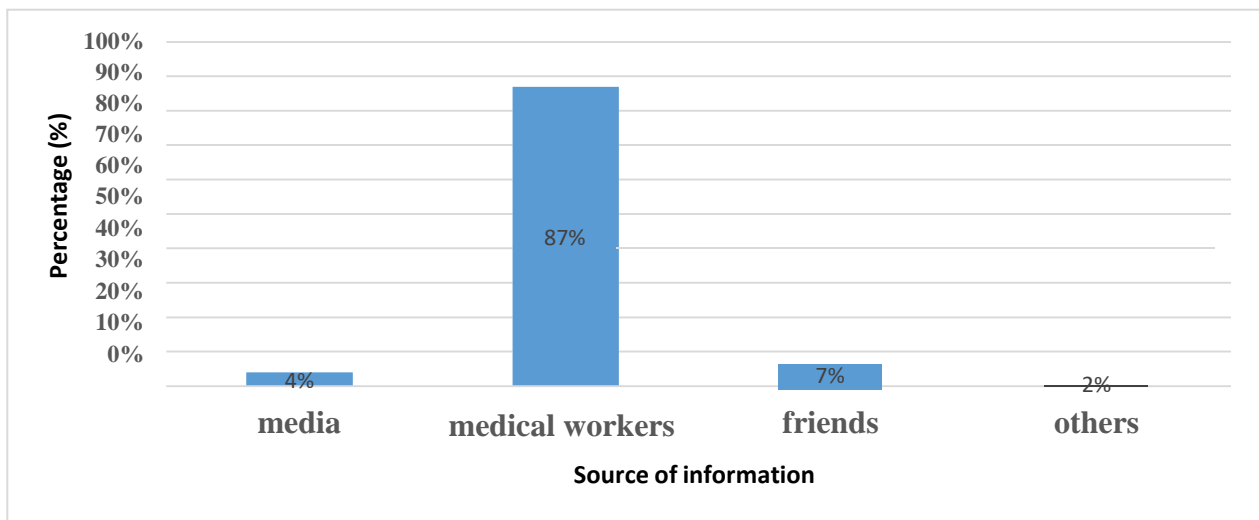
Figure 1: Shows distribution of respondents according to whether they had heard of oral rehydration therapy. N=60



From the figure 1, nearly all of the respondents (94%) had never heard of oral rehydration therapy. ever heard of oral rehydrationtherapy whereas least (6%) had

Figure 2: Shows the distribution of respondents according to their source of information on oral rehydration therapy.

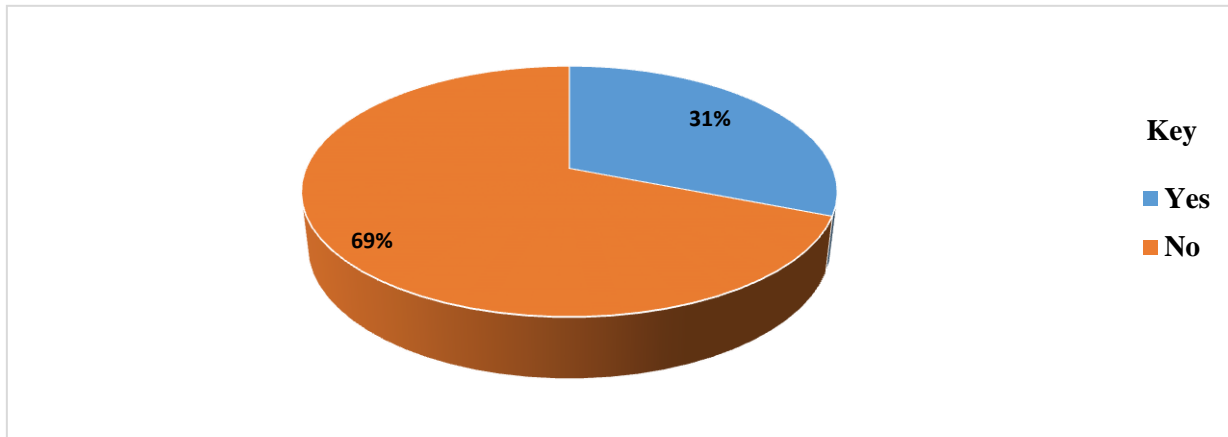
(N=60)



From the figure 2, the majority (87%) of the respondents obtained their information about oral rehydration therapy from medical workers while the minority (2%) obtained their information from other sources for example relatives.

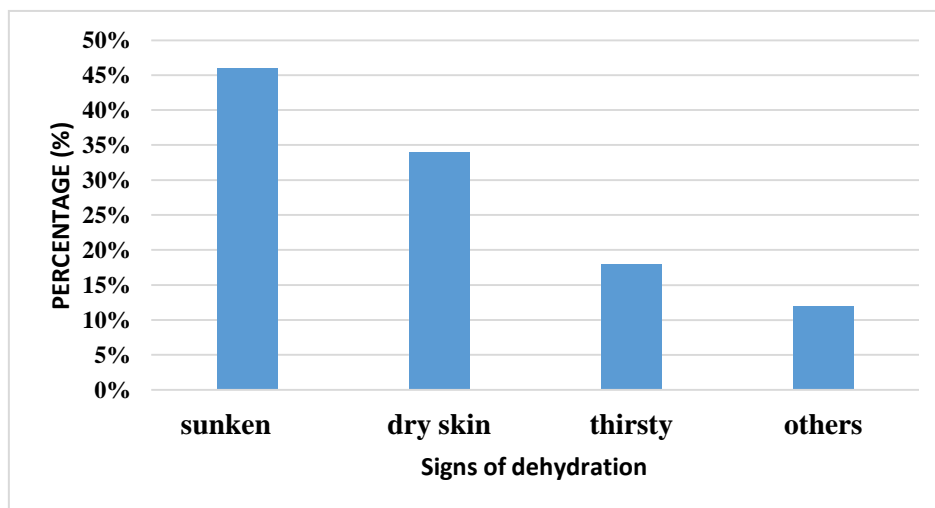
Figure 3: Shows the distribution of respondents according to whether they could detect a child who is dehydrated.

N=60



From the figure 3, the majority (69%) could not detect a child who is dehydrated whereas minority (31%) of the respondents was not able to detect a child who is dehydrated.

Figure 4: Shows the distribution of respondents according to how they detect a child who is dehydrated. N=60

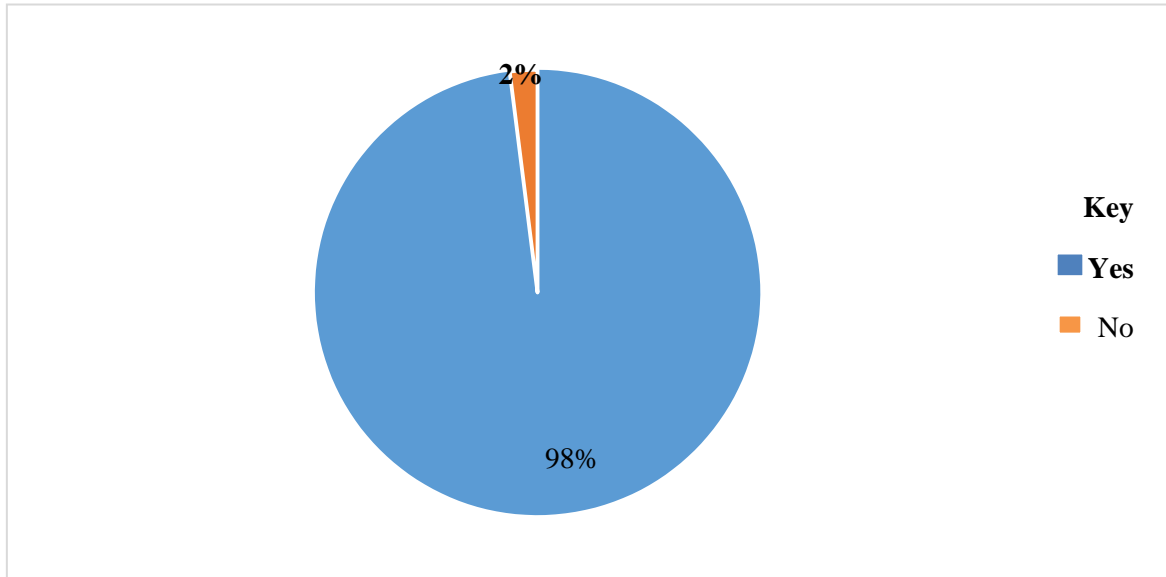


From figure 4, the majority (46%) could detect that the child is dehydrated using sunkeneyes whereas the minority (12%) gave other ways for example lack of teathers.

Attitudes toward Oral Rehydration Oral diarrhea the among caretakers of children Rehydration Therapy in the management of below five years.

Figure 5: Shows the distribution of respondents according to whether they think diarrhea is a serious condition, which can lead to dehydration or death.

N=60



From figure 5, the majority (98%) of the respondents believed that diarrhea is a serious condition, which can lead to dehydration or death

while the minority (2%) of the respondents' said diarrhea is not a serious condition that can lead to dehydration or death.

Table 4: Shows the distribution of respondents according to whether they thought Oral Rehydration Therapy is good for managing diarrhea in children below 5 years.

N=60

Response	Frequency (F)	Percentage (%)
Yes	44	73.3
No	16	26.7
Total	60	100

From table 4, most (73.3%) thought oral rehydration therapy is good in managing diarrhea in children below 5 years whereas (26.7%) said oral rehydration alone is not effective in

managing diarrhea in children below 5 years.

Table 5: Shows the distribution of respondents on whether they continue breast-feeding their children when they develop diarrhea. N=60

Respondent	Frequency (F)	Percentage (%)
Yes	36	60
No	24	40
Total	60	100

From table 5, most (60%) of the respondents continued to breast feed their children developed diarrhea whereas least (40%) of the respondents said no to breastfeeding with a reason that breast milk is like water and therefore will facilitate the diarrhea

DISCUSSION OF THE FINDINGS.

Knowledge of oral rehydration therapy in the management of diarrhea among caretakers of children below 5 years.

Findings from the study revealed that nearly all the respondents (95%) had ever heard about diarrhea. This signifies that a significant number of the study participants were cognizant of the study context. The current study findings were in agreement with Ssebuliba et al (2022) in a study carried out in Katoogo Health Center III where results showed that 96% of the respondents had heard of diarrhea.

In regards to knowledge of causes of diarrhea, the majority of the respondents (63.3%) reported poor hygiene as the major cause of diarrhea. This notifies a significant relationship between the respondent's level of education and the different sources of information. The results differ from the study that was done in Aden-Yamen by Omniat et al (2021), where results showed that 58.9% of the respondents reported teething as a major cause of diarrhea. The deviation in the figures could be due to the differences in educational status.

The study further revealed that the majority (94%) of the respondents reported that they had never heard of oral rehydration salt while the minority (6%) reported that they had never heard of oral rehydration salt. The current study findings are in agreement with a study by Abdiaziz (2018) where the majority of the respondents reported to have never heard of oral rehydration. This is attributed to the fact that oral rehydration salt is commonly used in the treatment of diarrhea.

Findings from the study also showed that the majority of the study participants (87%) reported medical workers as their major source of information on oral rehydration salts. This is in line with a study done by Omole et al (2019) among 350 mothers of under-five children in Samara

Kaduna state, Nigeria on assessment of knowledge, attitude, and practice of home management of diarrhea where results showed that 93.7% of the mothers had knowledge of ORS and their source of knowledge of ORS were mainly healthcare workers. This could be because mothers always take their children to either the hospital or the community clinics.

In this study, less than half (31%) were able to detect the danger signs of diarrhea. This is similar to a study done by Padhy et al, (2017) on mothers' knowledge, attitude, and practice regarding the prevention and management of diarrhea in children in Southern Odisha where the results showed that only 34% of the mothers were aware of assessment of danger signs and dehydration and about 27% about the treatment of dehydration.

Attitude towards oral rehydration therapy in management of diarrhea among caretakers of children below five years.

The present study also revealed that most of the respondents (86.3%) reported that diarrhea is a serious disease that can lead to death. This is in line with a study by Mohoh et al (2022) on mother's knowledge, attitudes, and home management of diarrhea among children below five years, where results showed that (85.3%) agreed that diarrhea is a serious disease that can lead to death if not properly and timely managed. This could be because both studies took place in urban settings where most of the respondents were literate.

Based on study findings, most (73.3%) of the respondents agreed that Oral Rehydration Salts are good for the management of diarrhea. This could be because most of them administered it to their children when having diarrhea and their well-being improved. However, these results were in disagreement with Workie et al (2018), whose findings showed that 55% of respondents disagreed with the provision of oral rehydration solution at home for the treatment of under-five diarrheal diseases.

To add to that, most (56%) of the respondents preferred to manage diarrhea with ORS. This could be due to the simplicity that arises from ORS preparations and few side effects. These were in agreement with Duoth & Dai (2018), where (61.2%) of mothers preferred to receive ORS for management of diarrhea.

Practice oral rehydration therapy in the management of diarrhea among caretakers of children below 5 years.

The study also showed that most (47%) of the study population gave their children hard foods and reduced their fluid intake. These findings were in disagreement with a study by Amare et al, (2014) on maternal knowledge, and practices towards diarrhea management in Fenote Selam town West Gossam zone, Amhara regional state, northwest Ethiopia where to study findings revealed that two mothers were giving hard and dry foods during diarrhea episodes moreover, four mothers told their practice as limiting the amount of fluid intake during diarrheal episodes. These mothers gave a reason that hard and dry foods and little fluid intake can decrease diarrhea episodes.

The study showed that the majority (60%) of the respondents reported that they continued to breastfeed their children. These figures are slightly lower than those from a study by Gandra et al (2017) on diarrhea, nutrition, and oral rehydration: Awareness, attitudes, and practices among mothers of children under five, where 3/4th of the study population (73.97%) practiced breastfeeding and was believed to be the best in small children during diarrhea.

To end with, more than half (58%) of the respondents administered ORS to their children during the first episode of diarrhea and this showed the caretakers had good diarrhea management practices. The current study results were similar to Mukisa (2018), where most (62%) of the respondents reported that they gave ORT/SSS to children as a home treatment.

CONCLUSIONS.

About the findings obtained from a sample of 60 respondents, the following conclusions were drawn from the researcher.

The study also discovered that the caretakers exhibited reasonable knowledge of the management of diarrhea since 95% of respondents had ever heard of diarrhea, 63.3% knew poor hygiene as a main cause of diarrhea, 69% could identify a dehydrated child, 98% had ever heard of ORS, 87% obtained the knowledge about ORS from the medical workers.

The study further established that the caretakers had a fairly pleasant attitude toward the management of diarrhea. This is because 98% of the respondents agreed that diarrhea is a serious condition that leads to dehydration or death, and 73.3% agreed that oral rehydration salts are good for the management of diarrhea.

Regarding the overall practices of the caretakers towards ORS in the management of diarrhea, the study established poor practices. This is in the view that only 56% took their children to the hospital whenever they developed diarrhea with 47% having the misconception that feeding their children hard food and reducing fluid intake can stop diarrhea, 60% continued to breastfeed their children when they developed diarrhea, and more than half 58% chose ORS as the drug for managing diarrhea.

The researcher generally concluded that caretakers exhibited fairly pleasant knowledge, and attitude but practices towards ORT in the management of diarrhea which exposes their children to effects of diarrhea for example dehydration and malnutrition.

LIMITATION.

Due to the small sample size, these results cannot be generalized to the whole population.

RECOMMENDATIONS.

The researcher therefore strongly recommends that the health workers at Soroti Regional Referral Hospital, Soroti District promote health Education of the caretakers on how to mix the ORS at home, this will help manage the effects the effects of diarrhea in time. The researcher recommends that the health workers at Soroti Regional Referral Hospital, Soroti District promote health education on the importance of ORS in the management of diarrhea and related effects like dehydration. The researcher also recommends that the Ministry of Health intensify its efforts to make sure that ORS is made available to the people at no cost.

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May God bless you all.

LIST OF ACRONYMS/ABBREVIATION

CDC: Centre for Disease Control

CIDRAP: Center for infectious Disease Research and Policy.

EPI: Expanded Program on Immunization

WHO: World Health Organization.

REFERENCES

1. Abdiaziz, S. M. (2018). caregiver's knowledge, attitudes and practices towards management of acute diarrhea among children 0-59 months in Jinja Regional referral hospital, Jinja District Hospital. *open access*.
2. Amare D, D. B. (2014). Maternal knowledge, attitudes and practices towards diarrhea management in under five children in fenote selam town, west Gossam zone amhaAmhara regional state northwest Ethiopia. *open access*, 2-6.
3. Panom Puok Duoth Kier and Ying-Chun Dai. (2018). Mothers' knowledge, attitudes, and practices on preventing diarrhoea in Juba. South Sudan. *South Sudan Medical Journal*.
4. Eashin Gazi, A. C. (2015). can mothers care for acute diarrheal disease of their under five children effective at home? A cross-sectional study in slum community in Bankura. *open access*, 5575-5584.
5. Gandra, R. N. (2017, september 05). diarrhea, nutrition, and oral rehydration therapy: awareness, attitude and practices among mothers of children under five. *open access journal*, 1997- 2001.
6. Leku, L. H. (2020). knowledge, attitudes and practices associated with oral rehydration therapy among caregivers of children two years or less with diarrhea in Arua District, uganda . *open access*.
7. Momoh Faith. E, O. O. (2022). mother's knowledge, attitude and practice of home management of diarrhea among children under 5 years. *African journal of primary health care and family medicine*, 14(1); a3119.
8. Mukisa Emmanuel. (2018) Knowledge, attitude, and practices of mothers/caregivers regarding oral rehydration therapy at Ishaka Adventist Hospital. *ir.kiu.ac.ug*
9. Omniat N.M.Abdulla, W. F.-A. (2021). Mothers knowledge, attitudes and practices regarding diarrhea and its management in Aden-Ymen: a cross-sectional study in poor resource setting. *Journal of pharmaceutical research international*, ISSN:65-378.
10. Omole VN, W.-, M. G. (2019). Knowledge, attitude and practices of home management of diarrhea among mothers of children under five years in samaru, kaKaduna state, Nigeria. *port harcourt, medical journal*, 19-25.
11. Padhy Sadasiba, R. K. (2017). Mothers knowledge, attitudes and practice regarding prevention and management of diarrhea in children in Southern Odisha. *open access journal*, 966-971.
12. Ssebuliba, j. s. (2022). Knowledge, attitude and practices towards management of diarrhea among caretakers of children below five years attending Katoogo Health centre iii, mukono district. *students journal of health research (SJHR)*, (ISSN 2709-9997).
13. Tareke AA, E. E. (2022). Pooled prevalence and associated factors of diarrhea among under five-year children in east africa: a multilevel logistic regression analysis. *open access*, 17(4).
14. WHO. (2017).
15. workie, H. S. (2016). Mothers' knowledge, attitudes, and practices towards the prevention and home-based management of diarrheal disease among under-five children Diredawa, Eastern Ethiopia. *open access*, 1471-2431.

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