

# Awareness and Knowledge of Mothers Regarding Home Management of Diarrheal Disease for Children Less Than Five Years in Gaffer Ibnauf Specialized Children Hospital

Eiman Ahmed Saad Mohmed<sup>1\*</sup>, Mohammed Abdalla Ibrahim Abdalla<sup>2</sup>

<sup>1</sup> Pediatric Nursing Department, Sudan International University, Khartoum, Sudan

<sup>2</sup> Faculty of Nursing Science, Shendi University, Shendi, Sudan

## Email Address

Eimanshandi@gmail.com (Eiman Ahmed Saad Mohmed), mohammed333abs@gmail.com (Mohammed Abdalla Ibrahim Abdalla)

\*Correspondence: Eimanshandi@gmail.com

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## Abstract:

**Background:** Diarrhea is the major cause of morbidity and mortality among children less than 5 years of age. Adequate rehydration therapy is most important aspect of management. Home based Oral Rehydration Therapy (ORT) prevents morbidity and mortality. In this study our objective was to assess the awareness and knowledge of mothers regarding home management of diarrheal disease for children less than five years in gaffer ibnauf specialized children hospital. **Methods:**This study was descriptive cross-sectional in gaffer ibnauf specialized children hospital. A questionnaire was provided to all the mothers admitted by child of under-five.in gastroenteritis word.**Results:** A total of 50 mothers 60% of mothers have awareness understand the term childhood diarrhea. 52% of mothers were aware of signs of diarrhea. 48.0% of mothers aware the severe symptoms noticed in child with diarrhea. 40.0% of mothers identify the mode of diarrhea spread, and more than halve mothers had poor knowledge. 52.0% of mother ware aware the danger of diarrhea. 42.0% of respondents were aware that dehydration is associatedwith acute loss of water and salt from the body. 52.0% of responder had a good knowledge about the management of diarrhea. 64.0% of the respondents were aware about the composition of oral rehydration therapy. 48.0% of the respondents had knowledge how to avoid some diet (like fat and fiber) in order to prevent diarrhea.**Conclusions:**The study concluded that mothers had good knowledge about definition, signs, symptoms, main danger of diarrhea, composition of ORT, important of fluid and breastfeed continuation, and they had poor knowledge about the diet control types of diarrheal diseases and mode of its transmission.

## Keywords:

Awareness, Knowledge, Mothers, Management, Home, Diarrheal, Disease, Children

## 1. Introduction

Diarrhea is defined as the passage of unusually loose or watery stool at least 3 times in a 24-hours period. The main problem with acute diarrhea is its ability to cause rapid fluid loss through stools in addition electrolytes [4].

Acute diarrhea is defined as an abnormally frequent discharge of semisolid or fluid fecal matter from the bowel, lasting less than 14 days [18].

Diarrhea is one of the commonest causes of morbidity among young children in developing countries as well as low income countries. Young children is most vulnerable especially under 5 years of age group. Annually 1.4 to 2.5 million deaths occurs in children under the age of 5 years [15].

According to the World Health Organization (WHO) and (UNICEF), there are about two billion cases of diarrheal disease worldwide every year, and 1.9 million children younger than 5 years of age perish from diarrhea each year, mostly in developing countries. Globally, acute diarrhea is the second leading cause of death (after pneumonia), and both the incidence and the risk of mortality from diarrheal diseases are greatest among children aged less than 5 years, particularly during infancy. [7] WHO European region 12 per 1000 live birth and African region 90 per 1000 live birth Sudan has one of highest prevalence rates of diarrhea and global acute malnutrition. In one study by Karrar and Omer [10]. The incidence of diarrhea in village near Khartoum was 217 episodes per 100 children per year, 28% of children below the age of 5 years in North Sudan had diarrhea in the two weeks prior to the survey, varying from 40% in Blue Nile to 19% in South Kordofan [4].

Most of the mortalities and morbidities due to diarrhea can be prevented by practicing primary preventive measures such as use of clean water, hand washing, good cooking, exclusive breast feeding, immunization, sanitary disposal of excreta, use of latrines and good sanitary and hygienic [18].

Secondary preventive measures include early recognition of dehydration due to diarrhea and prompt oral rehydration by ORT (oral rehydration therapy), increased & continued feeding of energy dense food in addition to breastfeeding, zinc therapy and the use of appropriate antibiotics for severe cases of diarrhea [12].

With reference to the pivotal role mothers play in management of diarrhea, a joint statement of WHO/UNICEF stressed the need to understand their present attitudes, perceptions and regarding diarrhea [12].

Information on factors playing role in diarrheal disease management, preventive measures and control strategies need to be understood for better planning, organization and implementation of health services within the community. In this context, the present study was undertaken to assess the knowledge and awareness of mothers regarding management of diarrhea and to give health education to mothers [18].

## 2. Material and Methods

**Study Design:** This study was descriptive cross-sectional hospital based study.

**Study Setting:** This study was conducted in Gaffar Ibn Auf specialized children's hospital which is located in Khartoum state. The hospital is one of the well-established in references hospital health in Sudan with large catchments where many patients. The hospital has about 500 beds for different units including out patients,

general word (GIT) word, pharmacy, blood bank and laboratory, ultra-sound, (NICU),(PICU) unit,Nursery, pediatric heamodialysis and department of dietitian .

**Study Population:** The focused groups of the study were all mothers admitted with child in ward of gastrointestinal disease in gaffar ibnauf specialized children' hospital.

**Inclusion Criteria:** All mothers with their different qualifications (illiteracy,primary school, secondary school and university) during the period of the study and were accepted to participate in the study.

**Exclusion Criteria:** All mothers who were not accept to participate in the study.

**Sample Size and Technique:** Total coverage was taken and there number was (50).

**Data Collection Tool:** Structured self-administrative questionnaire was being designed by utilization of two purposes as follows:

First: to find out the general characteristics of the study sample, it contains basic data related to their general characteristics such as age, qualification, number of children.

Second: to examine mother's awareness and knowledge regarding variables which includes questions about knowledge related to management of diarrheal disease at home.

**Ethical Consideration:** Ethical consideration was approval by Faculty of postgraduate studies and scientific research, Shendi University, then Permission was taken from ministry of health and gaffar ibnauf specialized children' hospital. Verbal consent was taken from participants after explanation the purposes of study.

**Data Management and Analysis:** The data was coded then analyzed manually by simple statistic technique (master sheet) then used soft ware program (SPSS) version 20 different statistical measure was used (frequency, percentage, and rate) then presented form tables.

#### ***Abbreviations and Acronyms:***

WHO	World Health Organization
AIDS	Acquired Immune Deficiency Syndrome
GIT	Gastro Intestinal Tract
CDC	Central Control For Disease
ORT	Oral Rehydration Therapy
UNIEF	United Nations International Children Education Fund
TPN	Total Parental Nutrition
I.O	Intra Osseous
I.V	Intra venous
SPSS	Statistical Package for Social Science
ETEC	Entro Toxigenic E Coli
EPEC	Entro Pathogenic E coli
S.dysentery	Shigella dysentery
NICU	Neonatal Intensive Care Unit
PICU	Pediatic Intensive Care Unit

### **3. Results and Discussion**

Diarrhea is one of the most common manifestations of illness in infants and children. It is characterized by an increased in fluidity, frequency, volume as well as

possible changes in color of faces in comparison with the usual stool pattern of the individual [10].

The treatment based on degree of dehydration. The treatment of acute diarrhea is determined by extent of the illness and the cause, with attention to hydration and dietary needs as appropriate and with prevention as a priority. Initially the priority is to restore and maintain hydration. Oral rehydration is generally attempted before intravenous hydration. The focus is on correcting the fluid and electrolyte imbalances and treating the underlying cause [18].

The current study conducted 50.0 mothers in gaffer ibnauf specialized children hospital and aimed to assess the home management of diarrheal disease for children less than five years.

Baseline data of mothers awareness and knowledge regarding home management of diarrheal diseases for children under five years in this current study indicated that, (42%) of participants are with age between (20-25 years), (36%) of them are more than 37 years, (14%) aged between (26-31 years) and only (8%) are between (32-37 years). According to the qualification, (28%) of mothers were illiterate, (36%) have a primary school degree, about (14%) are secondary school graduate and only (22%) of them graduated from university.

The study revealed that more than halve of participants (60.0%) had a good knowledge regarding understanding the term of diarrhea. Compared with previous study, Gabriel Ofikwu Ogbeyi from Opialu Benue state in Nigeria, only one hundred and twenty six respondents (42.7%) could define diarrhea correctly.

More than halve (52.0%) of mothers in this study had a good knowledge in management of acute diarrhea, compared with the previous study, Adanech Eshete, Assela town. The study findings revealed that, out of 390 caregivers, 182 (46.7%) had good knowledge about ORS utilization for acute watery diarrheal disease while 208 (53.3%) of care givers had poor knowledge. Other study Mr.Terefe Dodicho Dosha in Mareka district, Dawuro zone, SNNPR, Ethiopia level of practice on home management of diarrhea, among respondents knowledge was good in 309 (47.2%) of respondents and poor in 345 of them.

The study revealed that mothers' identification of diarrhea spread is poorly known in about (40.0%) of participants. Compared to previous study Dr. Kiran Kumar Rokkappanavar from House to house survey More than halve of participants lacked adequate knowledge regarding spread of diarrhea .

The study also Showed that the attribution of drinking contaminated water, eating food prepared by unwashed hands in a dirty environment in diarrheal diseases, only knowed about (44.0%) of mothers, compared with the previous study, Dr.Sadasiba Padhy, from M.K.C.G. Medical College (33%) of mothers had good knowledge on sanitary latrine and safe drinking water uses in prevention of diarrheal disease. Other previous study Gabriel Ofikwu Ogbeyi in Opialu, a rural community in Benue State, Nigeria, more than halve (61.1%) of the respondents had correct knowledge of hand washing after using the toilet.

According to respondents awareness of mean danger of diarrhea, (52.0%) of mothers had good knowledge, comparied to previous study Dr.Sadasiba Padhy in M.K.C.G. Medical College study (34%) of mothers were aware of assessment signs of dehydration.

(42.0%) of the respondents have a good knowledge that dehydration associated with acute loss of water, salt from the body, backache, thirst and acute loss of blood.

The study showed that about (52.0%) (More than halve mothers) had good knowledge about management of diarrhea, compared with previous study Mr.Terefe Dodicho Dosha from March to April, 2015. in Mareka district, Dawuro zone, SNNPR, Ethiopia was used to select 390 households, (46.7%) had good knowledge about ORS utilization for acute watery diarrheal disease management , while 208 (53.3%) of care givers had poor knowledge.

The study showed that majority of the respondents (64.0%) know the composition of oral rehydration therapy, compared with previous study Mr.Terefe Dodicho Dosha in Mareka district, Dawuro zone, SNNPR, Ethiopia, only 50 (37.6%) of respondents were aware about the correct amount of ingredients of home-made ORS (salt-sugar solution).

The study showed that majority of respondents (about 48.0%) have a good knowledge that during diarrhea they should modify the diet of child, compared with previous study Mr.Terefe Dodicho Dosha from Mareka district, Dawuro zone, SNNPR, Ethiopia Most of the mothers, caregivers (70.3%) were in favor of sustained feeding (breast milk, solid and liquid food) during episodes of diarrhea in their children.

**Table 1.** Distribution of the study sample according to symptoms noticed in child with diarrhea NO=50.

Variable	Frequency	Percent
weight loss with weak pulse	15	30.0
Dry hand	3	6.0
Passing of loss faces	27	54.0
Sunken eyes	5	10.0
Total	50	100%

**Table 2.** Distribution of the study sample according to symptoms of diarrhea NO=50.

Variable	Frequency	Percent
Constipation	7	14.0
Weight loss	30	60.0
Bronchial cough	1	2.0
Rickets	12	24.0
Total	50	100%

**Table 3.** Distribution of the study sample according to route of transmission NO=50.

Variable	Frequency	Percent
Diarrheal disease	18	36.0
Abdominal pain	4	8.0
Adequate feeding	9	18.0
Weakness and hanger	19	38.0
Total	50	100%

**Table 4.** Distribution of the study sample according to Dehydration is associated with many feature NO=50.

Variable	Frequency	Percent
Acute loss of water and salt from the body	21	42.0
Backache and thirst	1	2.0
Acute loss of blood	2	4.0
Bleeding and lower abdominal pain	26	52.0

Total	50	100%
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**Table 5.** Distribution of the study sample according to method have you used to prevent diarrhea in your family NO=50.

Variable	Frequency	Percent
Covered prepared food	4	8.0
Improving hygiene and sanitation	1	2.0
All above	44	88.0
Hand washing more frequently	1	2.0
Total	50	100%

**Table 6.** Distribution of the study sample according to Management of diarrhea NO=50.

Variable	Frequency	Percent
Correction of dehydration	7	14.0
Drug therapy	12	24.0
Herbal therapy	7	14.0
Blood transfusion	24	48.0
Total	50	100%

**Table 7.** Distribution of the study sample according to composition of Oral rehydration therapy NO=50.

Variable	Frequency	Percent
Sodium chloride and sugar	31	62.0
Bicarbonate sodium and sugar	7	14.0
Calcium and sugar	11	22.0
Potassium and sugar	1	2.0
Total	50	100%

**Table 8.** Distribution of the study sample according to be avoid to some diet during diarrhea NO=50.

Variable	Frequency	Percent
Breast feeding	24	48.0
Fatty food	12	24.0
Banana	2	4.0
Fibers diet	12	24.0
Total	50	100%

## 4. Conclusions

Based on the results of current study concluded that most of the mothers had good knowledge regarding understanding term of diarrhea, signs, symptoms, composition of oral rehydration therapy and important of fluid continuation, Mothers was poor knowledge about the spread, route of transmission of diarrhea and food avoiding during diarrheal diseases.

## Conflicts of Interest

The author(s) declare(s) that there is no conflict of interest regarding the publication of this article.

## Author Contributions

Methodology: E.A.S.M.; M.A.I.; Software: E.A.S.M.; M.A.I.; Validation: E.A.S.M.; M.A.I. Formal analysis: E.A.S.M.; M.A.I. Investigation: E.A.S.M.; Data Curation:

M.A.I.; Writing – original draft preparation: E.A.S.M.; Writing – review and editing: E.A.S.M.; Supervision: E.A.S.M.

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