

Maternal Traditional practice toward their Children Suffering from Diarrheal Disease

Prof. Dr. Iman Ibrahim Abd Al-Moniem¹, * Dr. Eman Abd Elfatah Ali²,
Salma Mohamed Mohamed³

¹-Professor of Pediatric Nursing, Faculty of Nursing- Ain Shams University-Cairo-Egypt.

²- Assistant professor of Pediatric Nursing Faculty of Nursing- Ain Shams University

³- B.Cs in Nursing- Ain Shams University-Cairo-Egypt.

Abstract

Background: Diarrhea is the second leading cause of death among under-5 years old children as it leads to loss of large amounts of fluids and essential electrolytes causing varying degrees of dehydration and death. **Aim** this study aimed to assess maternal traditional reported practice toward their children suffering from diarrheal disease. **Research design:** descriptive design was used. **Sample:** A purposive sample composed from 120 mothers accompanied with their children suffering from diarrheal disease. **Setting:** This study was conducted in dehydration room in emergency department at children Hospital affiliated to Ain Shams University Hospitals. **Tools:** three parts were used for data collection (1) predesigned questionnaire format, include the demographic characteristics of studied mothers and their children suffering from diarrheal disease & physical and physiological characteristics of child from medical record. (2) Studied mothers knowledge about diarrhea (3): Studied mothers reported practice regarding management of diarrheal disease. **Result:** the mean age of studied mothers was 32.27 ± 6.94 , more than one third of studied mothers had good level of total knowledge about diarrhea and less than one quarter of them had good level of reported practice regarding management of diarrheal diseases for their children. **Conclusions:** This study reveals that there were positive correlation and highly statistical significant between studied mothers' total level of knowledge and their total reported practice. **Recommendations:** Educational program for mothers about the care that should be given to children suffering from diarrheal disease & providing brochures and booklets containing simple information about importance of breast feeding and knowledge regarding weaning and danger signs of dehydration.

Key words: Diarrhea, children, knowledge, Traditional practice.

Introduction

Diarrhea is the passage of three or more stools in a day, It is the second main cause of mortality after pneumonia and the second after malaria among children under five years old. A significant number of diarrheal cases are often related to poor hygiene practices and inadequate sanitation. The high mortality rate caused by diarrhea in children under the age of five can be easily prevented if the episodes of diarrhea are well managed, Where this will result in saving thousands of children who suffer from diarrhea (Workie et al., 2018).

Diarrhea disease affects child's nutritional status, with an associated health and socioeconomic consequences, It is reported that 25 percent of stunting in children under the age of five could be due to five or more diarrheal episodes and While most diarrheal diseases associated with poor water, sanitation and hygiene (Benamba, 2019)

The vast majority of deaths from diarrhea are among children under 5 years of age living in low and middle income countries. Early and correct identification of diseases and prompt initiation of management plays a key role in reducing

diarrhea related mortality. The role of mothers is vital in health promotion, disease prevention and patient care (Dodicho, 2016).

Significance of the study

Diarrhea was the eighth leading cause of mortality, responsible for more than 1.6 million deaths per year. More than a quarter (446 000 deaths) of diarrheal deaths occurred among children younger than 5 years, and about 90% of diarrheal deaths occurred in south Asia and sub-Saharan Africa. Evidence shows that diarrheal diseases disproportionately affect locations with poor access to health care, safe water, and sanitation, and low-income or marginalized populations (Troeger et al., 2016).

Diarrhea causes death in 3,500-4,000 under-five years children per year in Egypt. In addition, repeated infections in children surviving after diarrheal attacks may lead to lifelong consequences such as growth retardation, impaired cognitive development, and impaired immune response to infection and vaccinations (Zaki et al., 2019). So the researcher is interested in justifying the importance of nurses role to management of diarrheal disease in children

Aim of the study:

The aim of this study is assess maternal traditional practice toward their children suffering from diarrheal disease.

Research Questions:

1-What are maternal traditional reported practices toward their children suffering from diarrheal disease?

2-Are there relation between mothers traditional reported practice and their characteristic's?

Subjects and methods

I-Technical Design:

The technical design included research design, setting, subject and tools of data collection.

Research design:

A descriptive design was used to achieve the objectives of the study.

Research Setting:-

This study was conducted in dehydration room in emergency department at children Hospital affiliated to Ain Shams University Hospitals

Research Subject:

A purposive sample composed from 10% (120) of total 1200 mothers accompanying with their children under 5 years suffering from diarrheal disease for 8 months

Tools of data collection:

Data was collected through the following tools.

I- Predesigned Questionnaire Format

It was designed by the investigator in Arabic language to suit mother after reviewing the related literature and consists of three parts:

Part I:

- a-Characteristics of studied mothers
- b-Characteristics of studied children suffering from diarrheal disease.
- c-Physical and physiological characteristics of child from medical record

Part II:

Mothers knowledge about diarrhea included: definition, causes, risk factors, clinical manifestation, complication, protection and management of diarrhea, types of food during diarrhea.

Definition, level, protection, clinical manifestation and management of dehydration.

Definition, signs to start weaning process, types of weaning food.

❖ Scoring system:

Maternal knowledge was determined by summing up the scores from responses to the questions, and the whole number of each question was (0-2)

- Zero for incorrect answer.
- One for partially correct.
- Two for completely correct.

The total questions for mothers knowledge was(15) questions and the maximum score was(30).

The scoring levels were arranged by percentage as follow for each studied mother:

- ≥ 60 good
- $20 < 60$ average
- < 20 poor

Part III: Studied mothers reported practices regarding management of diarrheal disease for their children included:breast feeding technique, artificial food precautions, weaning principles, method of cooking during diarrhea and method of giving oral rehydration solution.

❖ Scoring system:

Studied mothers reported practice regarding management of diarrheal disease for their children was determined by summing up the scores from responses to the questions.

- Yes for done
- No for not done.

The total reported practice for mothers reported practice was(5) questions and the maximum score was(10).

The scoring levels were arranged by percentage as follow for each studied mother:

- ≥ 60 good
- $20 < 60$ average
- < 20 poor

-Content Validity and Reliability:

The revision of tools was done by 3 expertises in pediatric nursing department specialty to measure validity and reliability of tools and necessary modification was done accordingly

II -Operational Design:

The operational design included preparatory phase, content validity, pilot study and field work.

-Preparatory phase:

It includes reviewing the current, past, local and international related literature and

theoretical knowledge of various aspects of the study using books, articles, internet, periodicals and magazines to develop the study tools for data collection.

Ethical Considerations:

Verbal approval obtained from the studied mother before inclusion in the study, a clear and simple explanation given according to their level of understanding, physical and mental readiness. They secured that all the gathered data was confidential and used for research purpose only.

- Pilot Study:

The Pilot study was carried out for 10% (12) of the subjects (120 cases) to test the validity and reliability of the tools, and then integrate the tools with the pilot study related to there wasn't modification

-Field Work:

The data were collected all over eight months periods from July (2019) to February (2020). / three days per week (Sunday, Tuesday and Thursday) from 9:00am to 1:00pm in the previous mentioned settings, during the morning shift.

III-Administrative design:

To carry out the study, an approval obtained from the medical and nursing director of emergency department of Ain shams University explaining the aim of the study in order to obtain their permission and cooperation.

A letter issued to them from the Faculty of Nursing, Ain-Shams University, The researcher then met the hospital director and explained the purpose and the methods of the data collection

IV-Statistical design:

Data collected from the studied sample was revised, coded and entered using Computerized data entry and statistical analysis were fulfilled using the statistical package for social sciences (SPSS) version 20.Data were presented using descriptive statistics in the form of frequencies,

percentages. Chi-square test(X^2) used for comparisons between qualitative variables. Pearson correlation to assess the linear dependence (correlation) between two variables. Statistical significant was considered at p-value <0.05

Result

Table (1): shows 45% of the studied mothers their age ranged from 30<40 with mean age 32.27 ± 6.94 , also 88.3% of them

Table (3): shows that 55.8% and 55% have correct answer regarding definition and management of diarrhea respectively, while 34, 2% have correct answer regarding clinical manifestations and protections from diarrhea.

were living in urban areas and 87.5% of them had cats in their homes, 76.7% of them were not working.

Figure (1): shows that 32.2% of the studied mothers were illiterates, while 6.7% of them could read and write.

Table (2): shows that 70.8% of the studied children aged less than one year old, 35.8% of them ranked as the third child in their family, and 75% of them were male

Table (4): Illustrates that 37.5% of studied mothers washes their breast and 35.8% consult a doctor before taking any medicine.

Table (1): Distribution of studies mothers' according to their characteristics(n=120).

Mothers' characteristics	No.	%
Mothers' age in years		
<20	13	10.8
20< 30 years	47	39.2
30<40 years	54	45
≥ 40	6	5
Mean \pm SD=	32.27 ± 6.94	
Mother work		
Working	28	23.3
Not working	92	76.7
Family numbers		
3	30	25
4<6	66	55
≥ 6	24	20
Residence place		
Rural	14	11.7
Urban	106	88.3
Presence of animals in home		
Birds	15	12.5
Cats	105	87.5

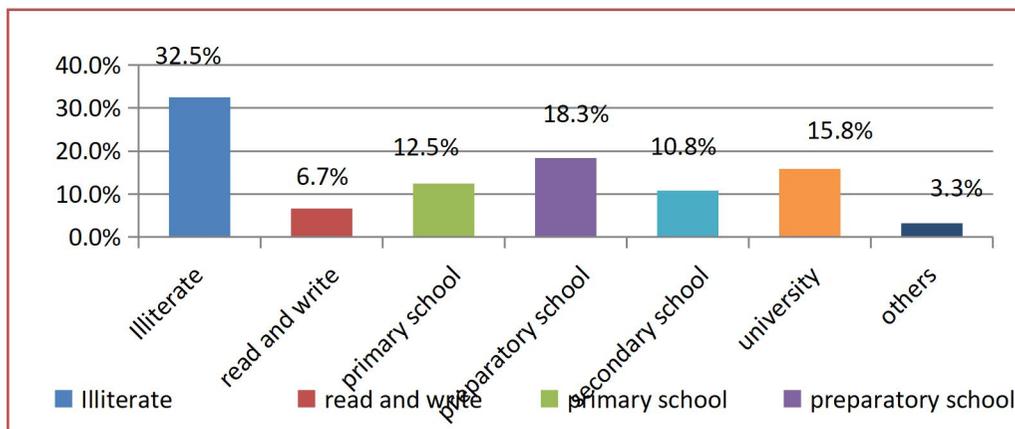


Fig (1): percentage distribution of studied mothers regarding their educational level.

Table (2): Distribution of studied children according to their characteristics(n=120).

Children characteristics	No.	%
Child' age		
<1	85	70.8
1<3	31	25.8
3≤ 5	4	3.3
Mean± SD=	1.33± .54	
Child rank		
First	30	25
Second	23	19.2
Third	43	35.8
Fourth or more	24	20
Gender		
Male	90	75
Female	30	25

Table (3): Distribution of studied mothers' knowledge about diarrhea(n=120).

Mothers level of knowledge about diarrhea	Incorrect		partially correct		Correct	
	No.	%	No.	%	No.	%
Definition of diarrhea	13	10.8	40	33.3	67	55.8
Causes of diarrhea	29	24.2	54	45	37	30.8
Risk factors of diarrhea	17	14.2	50	41.7	53	44.2
Clinical manifestations of diarrhea	8	6.7	71	59.2	41	34.2
Complications of diarrhea	36	30	61	52.5	23	19.2
Protections from diarrhea	9	7.5	70	58.3	41	34.2
Management of diarrhea	17	14.2	37	30.8	66	55
Types of allowed cooked food during diarrhea stage.	5	4.2	67	55.8	48	40

Part III: Studied mothers reported practice regarding management of diarrheal diseases.

Table (6): Distribution of studied mother's reported practice about breast feeding. (n=120).

Mothers reported practice	Answer			
	yes	%	no	%
Breast feeding technique.				
Breast washing	45	37.5	75	62.5
Raising infant head	63	52.5	57	47.5
Feeding from two breasts.	44	36.6	76	63.3
Brup the infant	60	50	60	50
Sleep the infant on right side	46	38.3	74	61.6
Continuation of feeding during diarrhea	62	51.6	58	48.3
Consult a doctor before taking any medicine.	43	35.8	77	64.1
Total				

Discussion:

Diarrhea disease is not lethal itself, the improper knowledge, poor practice and negative attitudes of mothers and their misdirected approach towards its management and pre-vention leads to high degree of severe dehydration and lastly death (workie.,2016).

This study was designed to assess maternal traditional reported practice toward their children suffering from diarrheal disease.

Concerning the characteristics of studied mothers.

This result revealed that near half of the studied mothers their age ranged from 30<40 with mean age(32.27).

This result was agree with **Agbolade et al.,2015** about (the Knowledge and Use of Oral Rehydration Therapy among Mothers of under-five children) who mentioned that near of half of studied mothers ranged from 30<40 ,but disagree with mean age as the subjects in the study was (29.7).

Regarding educational level of studied mothers the findings of current study clarified that near of one third of studied mothers were illiterates. This result was disagree with the study conducted by **Mumtaz et al (2014)** entitled"

Knowledge ,attitude and Practice of Mothers about diarrhea in children Under Five years " and revealed that, near two thirds of studied mothers were illiterates.

The findings of current study showed that more than two thirds of studied mothers were not worked. This result was agree with study conducted by **Begum et al.,(2020)** entitled " Knowledge and Practice of essential newborn care among rural mothers " who mentioned that more than two third of studied mothers not worked. On other hand this result was disagree with **Amare et al 2014**, study titled "maternal knowledge and practice towards diarrheal management in under five children" as they revealed that, near one third of studied mothers not worked.

From the researcher point view the difference may be due to the difference of the study area and sample size.

Regarding family numbers of studied mothers, Less than one quarter of studied mothers family members were ≥ 5 .

This result was agree with **Amare et al 2014**, in their study "maternal knowledge and practice towards diarrheal management in under five children" reported that, less than one quarter of studied mothers family numbers ≥ 5 .

Concerning age of studied children more than two thirds of the studied children aged less than one year .

This result was agree with **workie.,2018** in his study "Mothers' knowledge, attitude and practice towards the prevention and home-based management of diarrheal disease among under-five children in Diredawa, Eastern Ethiopia" who revealed that more than two thirds of the studied children aged less than one year .

According to the investigator Point of view the lower prevalence in the older children may be as a result of they acquired more immunity.

Epidemiologically, the prevalence of rotavirus which is the commonest cause of diarrhea is high in children aged below the age of 24 months (**Ndze.,2012**) who studied (Epidemiology of rotavirus diarrhea in children under 5 years in Northern Cameroon.) he state that The lower prevalence in the older children may be as a result of acquired immunity.

Regarding to characteristics of studied children gender, three quarter of studied children were male. This study was disagree with **Hamooya et al., 2020** in their study about " Predictors of diarrhea episodes and treatment-seeking behavior in under-five children: a longitudinal study from rural communities in Zambia", who mentioned that more than half of studied children were female.

Point of view of the investigators male children are more physically active comparing to females and this may make them more liable to get infection due to unsanitary surroundings than female children.

Concerning studied mothers total knowledge about diarrhea Regarding diarrheal definition more than half of studied mothers had correct answer regarding

definition of diarrhea,this result was in the same line with **Dest.,2017** in his study about "Knowledge, practice, and associated factors of home-based Management of Diarrhea among caregivers of children attending under-five", who revealed that more than half of studied mothers had correct answer.

On other hand this result was disagree with study done by **Warkie.,2016**, about "Mothers' knowledge, attitude and practice towards the prevention and home-based management of diarrheal disease among under-five children in Diredawa, Eastern Ethiopia" in which he revealed that most of the studied mothers had correct answer about diarrhea definition .

Regarding the causes of diarrhea, less than one third of studied mother knew the causes of diarrhea.

This result was disagree with **Saurabh et al.,2014** in study about "Knowledge and practice regarding oral rehydration therapy for acute diarrhea among mothers of under-five children" as he revealed that more than two third of studied mother knew the causes of diarrhea.

Regarding to management of diarrhea ,more than half of studied mothers knew how to manage diarrhea among under-five children.

This result was agree by **Merga.,2015** in his study about "Knowledge, perception, and management skills of mothers with under-five children about diarrheal disease" as he revealed that more than half of studied mothers knew how to manage of diarrhea. On the other hand, this result was disagree with study done by **Dest.,2017** titled, "Knowledge, practice, and associated factors of home-based Management of Diarrhea among caregivers of children attending under-five Clinic in Fagita" as he revealed that more than one quarter of the subjects included in his study

knew management diarrhea. From the investigator Point view this is mainly due to the fact that Cairo city is a bigger and more urbanized city with many mass media which give spotlight on health education

Regarding to the mothers level of knowledge about dehydration more than two third of studied mothers had incorrect answers regarding level of dehydration , This result was agree with **Padhy et al., 2017** in their study titled "Mother's knowledge, attitude and practice regarding prevention and management of diarrhea in children" as more than two third of studied mothers had incorrect answers regarding level of dehydration.

Regarding to the protection of dehydration near two third of the studied mothers had incorrect answers regarding protections of dehydration .this study was similar to study done by **Kareem et al.,2016** titled "cultural and traditional practice for the management of diarrhea in children under 5 years" they mentioned that near two third of the studied mothers had incorrect answers regarding protections of dehydration.

Conclusion:

The findings of the current study concluded that the most common traditional practice were breast feeding technique, methods of cooking during diarrhea, methods of giving oral rehydrain solution and age, educational level, residence place.

Moreover, there was highly statistical significant relation between study variables and positive correlation between the mothers total knowledge and total reported practice

So the study recommended that Regular health educational program for mothers in dehydration room in emergency department about care given to children suffering from diarrheal disease.

providing of brochures and booklets containing simple information about important of breast feeding and knowledge regarding weaning and danger signs of dehydration

further studied about the maternal traditional practice toward diarrheal disease with increasing sample size and different setting.

Financial support

- No funding was received

Conflict of interest

- Arranged alphabetic

References

- Agbolade, M;Dipeolu, I and Ajuwon, A .(2015):**Knowledge and Use of Oral Rehydration Therapy among Mothers of under-five children in a Military Barrack in Ibadan, Nigeria ,Full Length Research Pape ,Afr. J. Biomed. Res r(18) ,; 7- 15
- Amare, D.; Dereje, B.; Kassie, B.; Tessema, M.; Mullu, G.; et al. (2014):** Maternal Knowledge and Practice Towards Diarrhoea Management in Under Five Children in Fenote Selam Town, West Gojjam Zone, Amhara Regional State, Northwest Ethiopia, J Infect Dis Ther. 2014;2:182.
- Begum,M.; & Al Banna,.; Akter .S.; Kundu,S.; Sayeed,A.; Hassan,N.;Chowdhury,S.;**
- Khan,S.(2020):** Effectiveness of WASH Education to Prevent Diarrhea among Children under five in a Community of Patuakhali, Bangladesh ,SN Comprehensive Clinical Medicine 2:1158–1162
- Benamba,c .(2019):**Availiability of household latrines, disposal of child stool and its association with diarrhea among children under three years in tamale metropolis, adissertation submitted to university for development studies in conformity with requirement for the degree of Master of Philosophy ,p28

- Desta, B.; Assimamaw, N.; Ashenafi, T. (2017):** Knowledge, practice, and associated factors of home-based Management of Diarrhea among caregivers of children attending under-five Clinic in Fagita Lekoma District, Awi zone, Amhara regional state, Northwest Ethiopia, 2016. *Nurs Res Pract.*; 8084548.
- Dodicho, T. (2016):** Knowledge and practice of mothers/caregivers on home management of diarrhea in under five children in mareka district, *Journal of Health, Medicine and Nursing , An International Peer-reviewed Journal* ;(27) 71-82
- Kareem, R.; Irshad, S.; Asad, R; Alam, S. (2016):** Cultural and traditional practices for the management of diarrhea in children under 5 years of age in selected suburbs of Khyber Pakhtunkhwa. *J Rehman Med Inst.*;2(3):12-23
- Merga, N.; Alemayehu, T. (2015):** Knowledge, perception, and management skills of mothers with under-five children about diarrhoeal disease in indigenous and resettlement communities in Assosa District, Western Ethiopia. *J Health Popul Nutr.* ;33(1):20–30.
- Padhy, S.; Sethi, R.; Behera ,N. (2017):** Mother's knowledge, attitude and practice regarding prevention and management of diarrhoea in children in southern Odisha. *Int J Contemp Pediatr* 4:966-71.
- Sattar, S & Singh, S., (2018):** Bacterial gastroenteritis, A systemic review Book from StatPearls Publishing, 19(321):1-2.
- Saurabh, S.; Shidam, U.; Sinnakirouchenan ,M.; Subair, M.; Hou L, G.; Roy ,G. (2014):** Knowledge and practice regarding oral rehydration therapy for acute diarrhoea among mothers of under-five children in an urban area of Puducherry India. *Natl J Community Med.*;5(1):100–4
- Troeger, C.; Blacker, B. Khalil, I. (2016):** Estimates of the global, regional, and national morbidity, mortality, and aetiologies of diarrhoea in 195 countries: a systematic analysis for the Global Burden of Disease Study. *ScienceDirect*; 11(18):1211-1228.
- Workie, A; Sharifabdilahi, A; Addis, E. (2018):** Mothers' knowledge, attitude and practice towards the prevention and home-based management of diarrheal disease among under-five children in Diredawa, Open Access , *BMC Pediatrics*; s12887-018-1321-6
- Zaki, M. ; Mashaly, G.; Alsayed, M and Nomir, M. (2019):** Molecular study of human astrovirus in Egyptian children with acute gastroenteritis: a systemic review. *The Lancet Infectious Diseases*, 10(4):167-173.