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Mothers' knowledge about prevention of diarrhea in children under five years at the Eastern AL Hamza City

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***Abstract*---**The study Aim to ass Mothers' Knowledge about Prevention of Diarrhea in Children, The study was descriptive using quantitative data collection method. In which assessment approach is applied to achieve the objectives of the study and was conducted for during the period of the study from October 2021 to March 2022,The study recommended to encouraging the holding of seminars and urging the medical staff to educate mothers regarding the prevention of diarrhea.

***Keywords*---**Knowledge, Diarrhea, Children, Al Hamza City.

Introduction

Three or more loose or watery stools in a 24-hour period is considered diarrhea. It might be an increase in a person's daily stool fluidity, frequency, or volume compared to what is considered normal (Riaz et al., 2019). Diarrhea is the world's second leading cause of illness and death among children. Every year, 2.5 billion episodes and 1.5 million deaths occur among children under the age of five. In underdeveloped countries, this still accounts for 21% of all deaths. More children die from diarrhea than from AIDS, malaria, and measles combined. Furthermore, it results in secondary infection (Khatun et al., 2021).

In the case of severe diarrhea, home remedies are essential. This is the case since most nations have a cultural practice of treating diarrhea patients at home or on their own. Children's diarrhea usually begins at home and continues after they leave the clinic. According to studies, caregivers are the ones who discover diarrhea first (Khatun et al., 2021).

In poor countries, diarrhea is more common than in developed countries. This is due to a number of factors, including a lack of safe drinking water, a lack of

sanitary hygiene knowledge, and low nutritional and public health status. 2.5 billion people are predicted to have insufficient sanitation facilities, while 1 billion people do not have access to clean water(Lubis et al., 2021).

Method

Design of the Study

The study was descriptive using quantitative data collection method. In which assessment approach is applied to achieve the objectives of the study and was conducted for uring the period of the study from October 2021 to March 2022.

Setting of the Study

The accessible population included mothers of children under five years who attend to the any reason in the primary health care centers (PHCCS) in Eastern AL Hamza city. The study conducted in Eastern AL Hamza city including AL hamza sector primary health care. A total of (6) primary health care centers distributed in the eastern city of Hamza were selected from the primary health care sector in Hamza (and they were chosen randomly for the purpose of the study).

Sample of the Study

The sample selected by using of probability sampling (Randomly sample). Sample of (250) mothers from the primary health care centers when they companied their children at the time of attending the health centers. The total sample of mothers was selected (10%) from the average of the (2 previous monthly) that was 2500 mothers

Study instrument

A questionnaire is constructed for the purpose of the study throughout a review of relevant literature and consultation from panel of experts and related studies. It consists of two parts;

Part I: This part contains Sociodemographic characteristics of the mother participated in the study and which include age, education level, working condition, monthly income, address, family type, number of children under 5 years old and Information sources about diarrhea
Part II: this part is consisted of 16 items using to assess the mothers knowledge about prevention of diarrhea.

Result

Table (1)
Distribution of the mother's Socio-demographic Characteristics

Socio-demographic Characteristics		Freq.	%
Age	15- 24 years	92	36.8
	25- 34 years	110	44.0
	35 - 45 years	48	19.2
	Total	250	100
Educational level	Do not read and write	75	30.0
	Read and write	54	21.6
	Primary level	30	12.0
	Middle school graduate	15	6.0
	Preparatory school graduate	19	7.6
	Institute graduate	20	8.0
	College graduate	35	14.0
	Master's Degree	2	.8
	Total	250	100
Monthly income	Enough	89	35.6
	Hardly enough	111	44.4
	Not enough	50	20.0
	Total	250	100
Address	Rural	112	44.8
	Urban	138	55.2
	Total	250	100
Number of children under 5 years old	One child	80	32.0
	Two children	113	45.2
	Three children	57	22.8
	Total	250	100
	Total	250	100

%: percentage, ferq. : Frequency

Table (1) indicates that most mothers are less than 35 years old, as the study showed that (36.8%) of them were between 15-24 years old and (44.0%) of them were between 25-34 years old. The results of the study also showed that most of the mothers had a low educational level, as (30.0%) of them could not read and write and (21.6%) of those could read and write. The study showed that (44.4%) of the mothers were of low income so their answers about monthly income were "hardly enough''. The mothers' place of residence was close to rural and urban, and the percentage was (44.8%) and (55.2%), respectively. And (45.2%) of the mothers participating in the study had two children.

Table (2)
Mothers' knowledge about prevention of diarrhea

Item	True		False		Assess	
	Freq.	%	Freq.	%	mean of score	Level
What mean of diarrhea?	65	26	185	74	1.26	Low
What do you think is the cause of diarrhea?	60	24	190	76	1.24	Low
How do you think diarrhea is transmitted to children?	52	20.8	198	79.2	1.20	Low
What are the signs and symptoms associated with diarrhea?	51	20.4	199	79.6	1.20	Low
Which children are more likely to have diarrhea?	63	25.2	187	74.8	1.25	Low
What are the complications of diarrhea?	52	20.8	198	79.2	1.20	Low
Diarrhea can be prevented by	124	49.6	126	50.4	1.49	Low
To prevent diarrhea, it is preferable to feed the child a day?	137	54.8	113	45.2	1.54	Moderate
What kind of water should be used for daily needs to avoid diarrhea, preferably?	165	66	85	34	1.66	Moderate
The following prevention method can prevent diarrhea	158	63.2	92	36.8	1.63	Moderate
The following food should be avoided because it causes diarrhea	165	66	85	34	1.66	Moderate
Washing hands is of paramount importance in the prevention of diarrhea and should it be?	164	65.6	86	34.4	1.65	Moderate
A child can be prevented from catching diarrhea by avoiding milk.	51	20.4	199	79.6	1.20	Low
The preferred milk for the child to protect him from diarrhea is.	49	19.6	201	80.4	1.19	Low
To prevent a child from diarrhea must?	51	20.4	199	79.6	1.20	Low
What are the habits that prevent a child from catching diarrhea?	50	20	200	80	1.20	Low

%: percentage, ferq. : Frequency, low =1-1.4, moderate =1.5-1.7, high =1.8-2

Table (2) indicated that most of the mothers gave incorrect answers to items of knowledge about diarrhea and prevention of it. Most of them had low knowledge for majority of items.

Table (3)
Total mothers' knowledge regarding prevention of Diarrhea in children under five years

Level	Low level		Moderate level		High level		Total	
Knowledge	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Mothers' knowledge about prevention of diarrhea	114	45.6	120	48	16	6.4	250	100

This table exposed that (45.6%) of mothers had low level of knowledge about diarrhea and prevention and (48%) of them had Moderate level of knowledge in same item.

Discussion

Socio-demographic Characteristics of the study sample

As show in table (1): The current study has shown that (44.0%) of them were between 25-34 years old. The results of the study also showed that most of the mothers had a low educational level, as (30.0%) of them could not read and write and 21.6% of those could read and write. Most of the mothers worked as housewife, with a rate of (68.0%). The study showed that (44.4%) of the mothers were of low income so their answers about monthly income were "hardly enough" (table 4-1).

We believe that the reason for the appearance of nearly half of the participants aged (25-34) is that this age period is the appropriate period for childbearing. The researcher also attributes the reason for the low level of education of most mothers to the nature of the study community, which does not encourage education for females. Most of the mothers worked as housewives, the researcher attributed this to their low level of education. The poor economic status of the study population, which lacks agriculture, industry, and commerce, is the reason that led most mothers to answer about monthly income was "hardly enough" (the researcher).

Similar results were obtained by (Shah et al., 2019) . who found that that 42.7% of them were between 20-24 years old, they also observed that most of the mothers had a low educational level (93.2%). Most of the mothers worked as housewife, with a rate of (46.2%).

Out results may also come in accordance with (Workie et al., 2018) who conducted a study from March 15 –April 14, 2016, in Ethiopia and found that more than half of the mothers (51.5%) were in the age of 25–34 years, (38.3%) of them were housewives and 132 (44.8%) were unable to read and write.(Mukhtar et al., 2011) conducted in the Morang district of Nepal from included 130 mothers participated in the interviews and observed that most (80%) of them were not educated.(Khatun et al., 2021) showed that only (47.3%) of women have completed primary education, (34.5%) were illiterate, SSC (12.7%), bachelor. (9%)

and master (4.5%). (Bennion et al., 2021) Median age for respondents was 28.2 years old and 56.5% of mothers had completed primary school. The majority of participants were married (81.8%) and lived in an urban setting (86.0%). Children represented by study households

(Yüksel Kaçan et al., 2022) found that the mean age of the mothers participating in the study was 32.37 ± 4.63, their mean age of marriage was 25.03 ± 4.00, and their mean age at first childbirth was 27.16 ± 4.83. It was determined that (14.4%) of the mothers were primary school graduates, (98.6%) were married, (13%) earned less than their expenses, (10.6%) had extended families.

Mothers' knowledge about prevention of diarrhea As show in table (2)

The current study has found that most of the mothers gave the false answers and low knowledge about definition and main concept of diarrhea, and prevention of diarrhea; regarding management mothers' that most of the mothers gave the false answers and low knowledge about home management of diarrhea (table 2).

Regarding definition and general knowledge of diarrhea, the mothers had low knowledge for most of the items. This may be due to low educational level of the participated women as (30%) of them do not read and write, (21.6%) of them just can read and write, (12%) of them are primary school graduated, so that low knowledge is mainly related to low educational level (the researcher). The results of the current study agree with a study conducted in five villages of India by (Choube et al., 2014) who showed that only 5.6% of mothers say the correct meaning of diarrhea. (Elhusein and Fadlalmola, 2020) conducted a study in sudan and recorded that mothers have some lack of knowledge regarding signs and symptoms.

However, these results disagree with (Yüksel Kaçan et al., 2022) who found in their study the mean total diarrhea knowledge score of the participating mothers was found to be high.(Hackett et al., 2015) who conducted a study in Bangladesh stated that 88% of mothers knew the correct definition of diarrhea .(Shah et al., 2019) found that out of 117 respondents,(99.1%) gave the correct answer on the definition of diarrhea, most of them (74.8%) said that eating unhygienic food is the cause of diarrhea, nearly all respondents identified loose motion and abdominal pain as the symptom of diarrhea, majority of them (97.4%) stated dehydration as main complication of diarrhea .(Asakitikpi, 2010) found, in the survey conducted, (52%) of respondents believed that diarrhea can be cured, (21%) believed that it cannot be cured but would normally go by itself, while others (27%) confirmed that it can go by itself provided there is a shift in dietary pattern. (Workie et al., 2018) achieved a cross-sectional study in 2016, in Ethiopia among 295 mothers who had under-five child with diarrhea and observed that most of the mothers (92.5%), defined diarrhea as the passing of loose stool 3 or more times per day, while, only (2.7%) mothers identified blood in the stool; (85.5%) respondents thought that diarrhea is caused by drinking contaminated water, and around half (51.2%) of the participants identified that weakness or lethargy is the danger sign of under-five diarrheal disease, but it was unexpectedly observed that only 2 (0.7%) of them knew that marked thirst for water is the danger sign of diarrheal disease.(Raji et al., 2017) conducted a cross-

sectional study, 238 study participants with children less than or equal to 5 years were recruited into the study using systematic sampling technique, and found that Most (90%) of the caregivers had good knowledge of diarrhea disease.(Padhy et al., 2017) have found that (47%) mothers had knowledge about diarrhea, (52%) about the etiology and (58%) about risk factors of diarrhea. Regarding role of breastfeeding in diarrhea (48%) mothers had good knowledge and regarding adverse effects of bottle feeding 56% mothers were aware.(Rehan et al., 2003) Only 12 (3.6%) of the mothers knew that the microorganisms were the cause of diarrhea. Majorities of the mothers were not aware or did not come across the dangerous sign of dehydration,(Gascon et al., 2000) found that less than half of the respondents 285 (48.3%) had comprehensive knowledge on causes of diarrhea in a low-income regions. This difference in the mothers' knowledge between our study and other studies can be attributed to the difference in the demographic characteristics of societies regarding educational status, economic level, and the role of government institutions in providing educational program for mothers and other caregivers (the researcher).

Diarrhea is still an important problem of the developing countries. Negative environmental factors, poor food sanitation and insufficient knowledge of personal hygiene are the prominent etiological factors. Although there is no significant decrease in the number of annual cases with diarrhea, its mortality rates are decreasing. Decrease in mortality rates is more significant within the first year of life (ApA et al., 2015). (Bennion et al., 2021) stated that diarrhea remains a major cause of morbidity and mortality among children in developing countries. In 2010, (64%) (5.5 million) of the 7.6 million deaths in children under the age of five years old were attributable to infectious diseases and (10.5%) were caused by diarrhea. This is probably related to the increased use of ORS, longer and correct breastfeeding practices and better food and water sanitation (ApA et al., 2015).

Regarding the items about the prevention of diarrhea, in which most mothers had (moderate) knowledge about methods of prevention of diarrhea. This moderate level can be attributed to the instructions given by health care providers about the methods of prevention specially those regarding washing hands and personal hygiene (the researcher). This the current study comes in agreement with (Mumtaz et al., 2014) and found that (62%) mothers knew various preventive methods like washing hands, keeping the environment and the child clean,(Shah et al., 2019) Most of the respondents were able to say handwashing as preventive measure of diarrhea,(Usfar et al., 2010) mothers perceived that the importance of personal hygiene was for maintaining health and cleanliness . (Workie et al., 2018) This study indicated that (42%) of mothers had good awareness in prevention of diarrhea .(Bennion et al., 2021) conducted a study in Tanzania which identified washing hands before a meal as a correlate to reduced diarrheal disease in children

Conclusion

According to the results obtained by the current study, it is concluded that Most mothers' had low knowledge about prevention of diarrhea in children under five years.

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