

Knowledge Attitude and Practices of Mothers about Diarrhea in Children under 5 years

Yasmin Mumtaz,¹ Mubbashir Zafar² and Zara Mumtaz³

ABSTRACT

Objective: To assess the knowledge, attitude and practices regarding diarrhea among mothers of children less than 5 years of age in civil hospital Karachi.

Methodology: It is a descriptive cross-sectional study conducted at Pediatrics ward and OPD Civil Hospital Karachi during July - August 2011. Non-random Convenient sampling was adopted to sample 200 subjects by interviewing mothers after taking their consent. Mothers have at least one child less than 5 years of age were included.

Results: Mothers' knowledge regarding the causes of diarrhea; contaminated water (17%), eating mud (14%), teething (10%). About signs of dehydration, 40% mothers gave unspecific signs and 26% responded with sunken eye as the only sign while 35% answered two signs (thirst and dry hair/skin). Mothers who knew how to prepare ORS were 80%. Regarding prevention of diarrhea, 15.5% mothers knew to cover food and 14.5% to boil water. Regarding health care seeking practices 52.5% mothers took the child to the doctor after 2 days, 30% mothers did self medication.

Conclusion: There is inadequate maternal knowledge; attitude and practices regarding diarrhea and its prevention in the population studied. There is need of health education to mothers about diarrhea, its causes prevention and proper treatment.

Key words: Diarrhea, mothers, child, knowledge, attitude, practices, civil hospital.

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INTRODUCTION

Diarrhea is defined as the passage of three or more loose or liquid stools per day or more frequent than normal for the individual.¹ Variety of bacteria, viruses and parasites are the cause of diarrhea. Infection spreads through contaminated food or drinking water or from person to person as a result of poor hygiene. Diarrhea is both preventable and treatable disease. Fluid loss in diarrhea has fatal outcomes and it is the leading cause of malnutrition.^{2,3}

Diarrhea is the second leading cause of child morbidity and mortality, especially in the developing countries. It is estimated that there are 2.5 billion episodes and 1.5 million deaths annually in children under-five years

of age. This accounts for 21% of all the deaths in developing countries and the number has remained unacceptably high.⁴⁻⁸ Diarrhea kills young children more than Acquired Immunodeficiency Syndrome (AIDS), malaria and measles combined. It also exposes children to secondary infection.

According to WHO, in Pakistan mortality rate of under 5 years of age is 87/1000 and diarrhea is the second leading cause after acute respiratory infection. 47.2% of children with diarrhea are receiving oral rehydration therapy.⁹

Diarrhea is not lethal itself, the improper knowledge of mother and their misdirected approach towards its management leads to high degree of mismanagement and resultant severe dehydration.¹⁰

Head of Department¹/ PG Student FCPS II²/ Lecturer,³ Department of Community Medicine, Dow Medical College, Dow University of Health Sciences, Karachi, Pakistan.

Correspondence: Dr. Yasmin Mumtaz, Head Department of Community Medicine, Dow Medical College, Dow University of Health Sciences, Karachi, Pakistan.

Email: zafar_duhs@yahoo.com

Studies have been done in different areas of Pakistan about mother's knowledge about diarrhea, use of ORS, impact of mother's knowledge on the management of diarrhea but very few studies have been done in Civil Hospital Karachi and most of them were done to assess knowledge of mothers about diarrhea in children less than 2 years so the objectives of this study therefore

are: To assess the knowledge, attitude and practice regarding diarrhea among mothers of children under 5 years of age in civil hospital Karachi.

If we find that their knowledge is poor we shall be able to arrange awareness programme of health education in Civil hospital Karachi. We will try to involve students also for counselling of mothers in the treatment and proper management of diarrhea which is the second leading cause of malnutrition and death in children under five years in Pakistan.

METHODOLOGY

This is a cross-sectional study and was conducted on mothers whose children were admitted in Pediatric wards and visited OPD of Civil Hospital Karachi. A written permission was taken from the Head of the Department of Pediatrics wards.

Sample size was calculated using WHO software for sample size determination in health studies. It was calculated under the assumptions that the proportion of mothers appropriately treating their children with acute diarrhea was 55% ($p=0.55$), with an expected 7% of the tolerable level of imprecision ($D=0.07$). Therefore, a sample of 200 mothers was needed. Convenient sampling method was employed in the study. An informed written consent was taken from the participants and they were interviewed using a validated questionnaire. Inclusion criteria were all the mothers of the admitted children in pediatric wards or coming to the pediatric OPD of Civil Hospital Karachi who wished to participate in the study voluntarily having at least one child the age of 5 years and the presenting complaint of the child was diarrhea.

The subjects were asked about 1) Definition of diarrhea 2) Causes of diarrhea 3) Signs of dehydration 4) Time and need to see the doctor 5) Any medicines used at home 6) Diet preference in diarrhea 7) Method of preparing instant ORS 8) Methods of prevention of diarrhea.

Data entry was done on EPI data software. Data was double entered for removing the missing value or check error rate which should be <0.02 . Cleaning and coding of the data were done prior to analysis using Statistical package for social science (SPSS) version 16. Descriptive statistics of socio-demographic variable, knowledge, attitude and practice factors were presented as mean, standard deviation or frequency percentages.

RESULTS

The socio-demographic characteristics of mothers are shown in Table 1. Knowledge of mothers regarding

diarrhea in which 144(72%) mothers considered loose and watery stool as diarrhea. Regarding causes of diarrhea, 94(47%) of mothers said evil eyes ,only 34(17%) considered contaminated water, about signs of dehydration 80 (40%) did not know about it. 142(71%) mother said diarrhea causes lethargy (Table 2)

Table-1 Socio-demographic characteristics of Study Participants. (N=200)

Characteristics	
Age (years) means (SD)	30 (6.77)
Education Status	n(%)
Illiterate ¹	125 (63.5)
Literate	75 (36.5)
Husband income level(PKR) ² (IQR)	
<5000	81(40.5)
>5000	119(59.5)

¹Can not read and write ²Pak rupee

Table 2. Knowledge of Diarrhea among study participants (n=200)

Variables	
Diarrhea	NO. %
Watery stool	144(72)
Increase frequency	27(13.5)
Both	29(14.5)
Cause of Diarrhea	
Contaminated water	34(17)
Eating mud	28(14)
Contaminated water and eating mud	14(7)
Teething	20(10)
Evil eyes	94(47)
Don't know	10(5)
Sign of dehydration	
Sunken eyes	52(26)
Thirsty and dry skin	68(34)
Don't know	80(40)
Consequences	
Lethargy	142(71)
Loss of Weight	42(21)
Unconsciousness	7(3.5)
Death	9(4.5)

Regarding prevention of diarrhea, 62% mothers knew various preventive methods like washing hands, keeping the environment and the child clean. Most of the mothers (75.5%) knew how to prepare ORS correctly. 25% mothers gave ORS during diarrhea to their children and only 27% of mothers contacted a pediatrician Table 3. When child health did not improve then only 62% of mothers immediately visited to the doctor while 30% still self medicated, 3% went to healer and 5% waited for the child to recover spontaneously.

Table 3. Practices regarding diarrhea among study participants (n=200)

Diet Preference during Diarrhea	NO. %
ORS	50(25)
Khichri only	7(3.5)
Others (banana, porridge, Khichri)	143(71.5)
Visits to Doctors	
Immediately visit	54(27)
After 2 days	138 (69)
Never visits	8(4)
Prevention	
Boiling water	29(14.5)
Properly covering food	31(15.5)
Washing hand, clean environment personal hygiene	124(62)
Don't know	16 (8)

Among the reasons for not visiting doctors, financial issues were 22.5%, they knew what medicines to give 65%, no need of medicines 6.5%, transport issues 5% and condition would improve spontaneously 1%.

The medicines used at home included Metronidazole, Ranitidine, Ibuprofen, Acetaminophen, motility reducing drug, acetaminophen and antibiotics as self-medication. Mothers knew about these drugs as doctor had prescribed these for the same child or for another child.

DISCUSSION

The study showed that only 72% of the mothers knew the correct definition of diarrhea. This result is consistent with the study conducted in Bangladesh stated that 88% of mothers knew the correct definition of diarrhea.¹¹

Most of the mothers (47%) did not know the causes of diarrhea. They considered teething, falling from height, evil eye, eating pulses or hot food and weather changes as the predisposing factor. A study in Indonesia showed similar results.¹²

In terms of knowledge about the signs of dehydration, most of the mothers (40%) were not able to specify them. 34% of the mothers responded by giving multiple signs like sunken eyes with thirst or decreased salivation or dry hair. This result is consistent with other study that was carried out in Gambat, Pakistan.¹³

The preferences of the mothers about diet varied but majority 71% of them preferred a diet comprising of khichri, bananas, porridge. Some of the mothers even gave yoghurt and rice water to the child and 25% gave ORS to their children. A similar study conducted in

Burkina also stated that during diarrhea, 50% mothers gave pulses and khichri, rice water, banana, 25% ORS.¹⁴ Another study in Bangladesh showed that a more than 50% of mothers were in favor of giving food and fluids during the illness but less than 25% opted for oral rehydration therapy.¹⁵

Out of 200 mothers, 151 (75.5%) knew how to prepare instant ORS correctly. In a research carried out in Nepal, after health education it increased to 70%.¹⁶

Regarding prevention of diarrhea, 62% mothers perceived the importance of personal hygiene for prevention of diarrhea in contrast to 45% in a Gambia research.¹⁷ Very few mothers knew various preventive methods like, boiling water (14.5%). Another research conducted in Indian city of Karnataka, showed that only 25% mothers boiled their drinking water.¹⁸

The result of this study showed that 30% of mothers did self-medication, various studies have highlighted the widespread use of drugs by mothers in treating their children with diarrhea. There misuse increased not only the cost of therapy but also exposed infants and children to potential toxic effects.^{19,20} Health education should focus on the benefit, early initiation, and the preparation of ORT and the causes of diarrhea.

Limitation of this study is that it is a hospital-based study where mothers might have been given health education regarding diarrhea so their level of knowledge would be different from mothers in the community. So another study is needed to see the level of awareness in the community and to make comparison. The strength of this study is that it is interview based not self-administered questionnaire.

CONCLUSION

The study concludes that there is a lack of knowledge among mothers regarding diarrhea and its causes and prevention. Mothers were not able to identify specific signs of dehydration and used irrational drugs during diarrheal episode. Most of the mothers preferred soft food and adequate fluids and knew how to prepare instant ORS but many of them were still unaware of the preventive measures taken at home. there is a dire need of health education for mothers about diarrhea, its causes, prevention and proper treatment.

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