ORIGINAL ARTICLE

Awareness of Mothers Regarding Concept and Management of Diarrhea in Children of Kasur

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ABSTRACT

Aim: To assess mothers' knowledge of diarrhea and practices in management of diarrhea in children.
Study Design: Cross sectional descriptive study
Place and duration of study: Bhatti International Teaching Hospital Kasur and Central Park Teaching Hospital both affiliated with Central Park Medical College Lahore from June 2016 to July 2016.
Methodology: A proforma containing the questions was designed aiming to know about the understanding of mothers about diarrhea. Mothers presented with their babies suffering from diarrhea were questioned by pre-instructed junior doctors to take best answer. All mothers willing to answer were included in study. Results were obtained in the form of mean, median, mode and average by using SPSS 23 and presented in tables and graphs.
Results: A total of 95 mothers presented with 48(50.5%) boys and 47(49.5%) girls. Majority 64(67.4%) were from low socioeconomic group. Median age of patients was 1.6 years. Mothers between 20-30 years were 71(75%), more than 30 years were 18(18.9%) and only 6(6.3%) mothers were below the age of 20 years. 73(76.8%) mothers knew correctly about ORS preparation, 16(16.8%) incorrectly while 6(6.3%) didn't know how to prepare ORS. 49(51.6%) mothers knew incorrect amount while 37(38.9%) knew correct amount to be given after each loose motion. Majority of the mothers 41(43.2%) were using municipal water, 31(32.6%) underground water, 19(20%) water filters and 4(4.2%) mothers purchasing it. While 41(43.2%) mothers considered increased number of stools as diarrhea, only 14(14.7%) mothers think diarrhea to the liquid consistency of stools. However 35(36.8%) mothers considered both of the features as diarrhea and 3(3.2%) mothers didn't know what is diarrhea. Dirty hands were considered by 27(28.4%) mothers, followed by feeders and water 16(16.8%) and 15(15.8%) as the causative factors, respectively. 64(67.4%) mothers were educated and 31(32.6%) uneducated. Out of 95 mothers, 82(86.3%) were housewives and 13(13.7%) working women.
Conclusion: Mothers' knowledge regarding various aspects of diarrhea has increased. It is necessary to give awareness about signs of dehydration, quantity of ORS to be given and to promote the concept of continued routine feeding during illness.
Keywords: ORS, Diarrhea, Dehydration

INTRODUCTION

Diarrhoea is one of the leading causes of death in children under five years old, and is responsible for killing around 760,000 children every year[1,2,3,4] especially in resource-poor countries[5]. Most of the people die because of severe dehydration and fluid loss, that can be compensated in most cases by an oral rehydration solution (ORS)[6,7,8,9]. Malnourished children having impaired immunity are at higher risk of life-threatening diarrhoea which is usually a symptom of intestinal infection because of a variety of bacterial, viral and parasitic organisms that spreads through contaminated food, water from person toperson[1].

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The Integrated Management of Childhood Illness (IMCI) guidelines advise the use of oral rehydration therapy (ORT), along with continued feeding, and zinc for appropriate management of diahorea[10].

Most of the diarrheal episodes are treated at home, and mothers are the key caregivers to under-five children[11]. WHO recommends that mothers and care givers should be able to identify the signs of dehydration including excessive drowsiness, poor skin turgor and restlessness and absence of tears. A study revealed 73.1% mothers identify only one of these signs.[12] Therefore, mothers' knowledge about this diarrhea is critically important. Awareness of perception towards diarrhea and individual as well as household actions to prevent and/or manage the disease, have paramount importance to reduce diarrhea-related morbidities and mortalities[13].

Oral Rehydration Therapy (ORT) is simple, inexpensive and the most effective primary

intervention for the management of diarrhoea. It can be easily administered at home by the mothers/ caregivers as soon as a diarrhoea episode begins[14].

The objective of the study was to assess mothers' knowledge of diarrhea and practices in management of diarrhea in children.

METHODOLOGY

A descriptive, cross-sectional survey was carried out in Bhatti International Teaching Hospital, Kasur and Central Park Teaching hospital both affiliated with Central Park Medical College, Lahore in June, 2016. The hospital is located in downtown of the city in the midst of several villages.

Mothers presented with their children suffering from acute diarrheal episode willing to answer the questions were included in the study. Mothers were excluded from study if not willing to answer the questionnaire, children of less than 1 months of age and children with chronic diarrhea

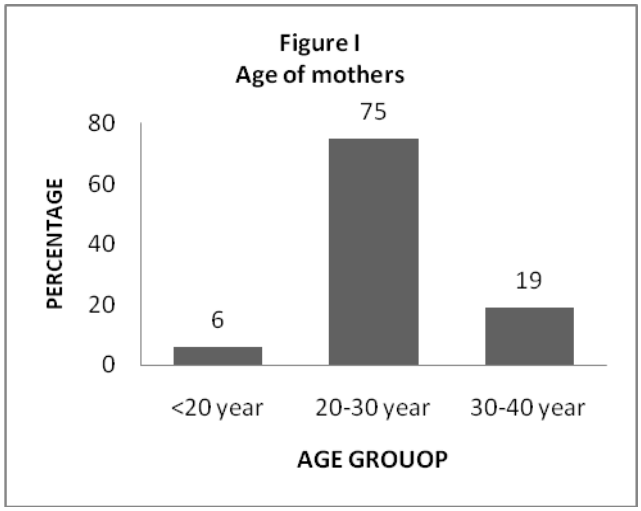
A self-designed questionnaire with the objective of the study in mind was employed to gather data on mothers' knowledge about the childhood diarrhea. The questionnaire was designed using related literature. It included child and mother's age, mother's education, occupation, and approximate monthly income. Questions like what is diarrhea, possible etiological factors, what to give in such condition, water source, signs of dehydration, how to prepare ORS, how much to give after each bowel movement and should the routine diet to be continued were put to mothers. Junior doctors were trained to ask these questions in such a simple way that mothers with any educational level were able to understand the questions without any ambiguity. This was important to gather the data in its most accurate form. Each question in proforma regarded as variable. Data were analyzed using descriptive and inferential statistics. Testing of the collected data was done by using SSPE 23to get means, mode, average and percentages.

RESULTS

A total of 95 mothers visited Pediatrics department of Bhatti International Teaching Hospital Kasur and Central Park Teaching Hospital both affiliated with Central Park Medical College Lahore were interviewed during study period. Majority of them 64(67.4%) were from low socioeconomic group, their average family income was less than 25000 rupees per month. The median age of patients was 1.6 years (age ranged from 1month to15 years). Of 95 patients, 48(50.5%) were males and 47(49.5%) were females (M: F ratio 1.01:1). Majority of the mothers 71(75%) were between 20-30 years of age (Fig. I). Majority of mothers 64(67.4%) were educated and 31(32.6%) uneducated (Fig. II). Out of 95 mothers 82(86.3%) were housewives and only 13(13.7%) were working women. Defining diarrhea in their children, 41(43.2%) mothers considered diarrhea as increased number of stools, only 14(14.7%) mothers think diarrhea to the liquid consistency of stools. However, 35(36.8%) mothers consider both of the features to be as diarrhea. Quite amazingly 3(3.2%) mothers don't know what is diarrhea (Fig. III).

Asfar as knowledge of mothers regarding preparation of oral rehydration solution was concerned, of 95 mothers 73(76.8%) knew correctly about ORS preparation (Fig. IV). Majority of the mothers 49(51.6%) knew incorrect amount of ORS to be given while 37(38.9%) knew correctly the amount has to give after each loose motion (Fig. V). Majority of the mothers 41(43.2%) revealed that they used municipal water, another 31(32.6%) had access to underground water. Aminor number 19(20%) was using water filters and the least number 4(4.2%) was purchasing it from different local companies. Considering cause of diarrhea, dirty hands were the major single factor considered by 27(28.4%) mothers, followed by bottle feeds and water 16(16.8%) and 15(15.8%) respectively.

Most mothers 87(91.6%) were equipped with knowledge of one or more signs of dehydration. Only a small number of mothers 8(8.4%) were helpless to recognize any sign of dehydration. Almost half of the mothers (50.5%) were in favor of stopping routine feeds during diarrheal episode (Fig.VI). Majority of the mothers (67.4%) were against self medication but 32.6% advocated it.



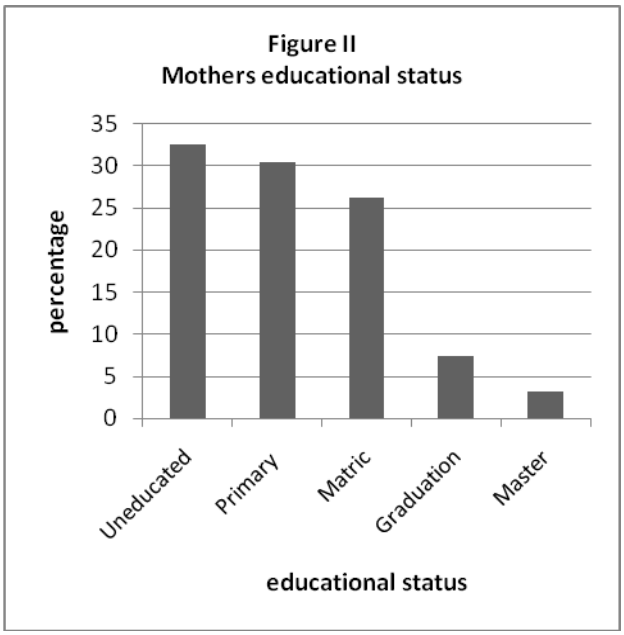


Figure II
Mothers educational status
percentage
35
30
25
20
15
10
5
0
Uneducated
Primary
Matric
Graduation
Master
educational status

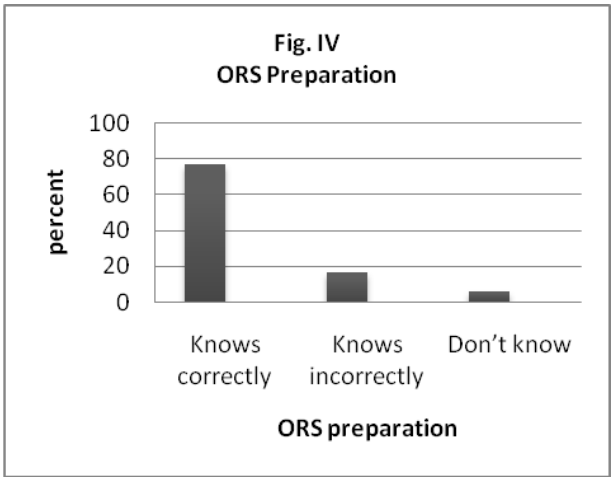


Fig. IV
ORS Preparation
percent
100
80
60
40
20
0
Knows correctly
Knows incorrectly
Don't know
ORS preparation

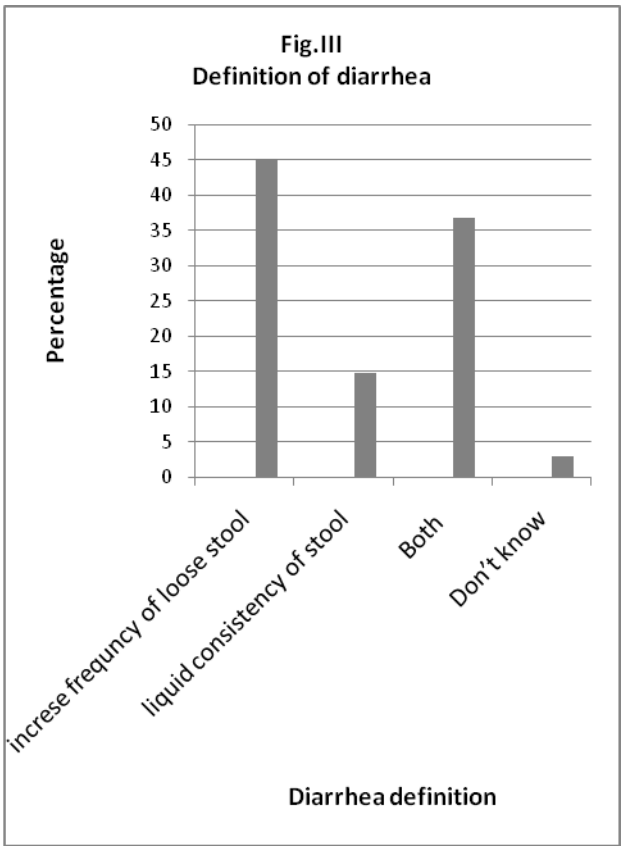


Fig.III
Definition of diarrhea
Percentage
50
45
40
35
30
25
20
15
10
5
0
increse frequncy of loose stool
liquid consistency of stool
Both
Don't know
Diarrhea definition

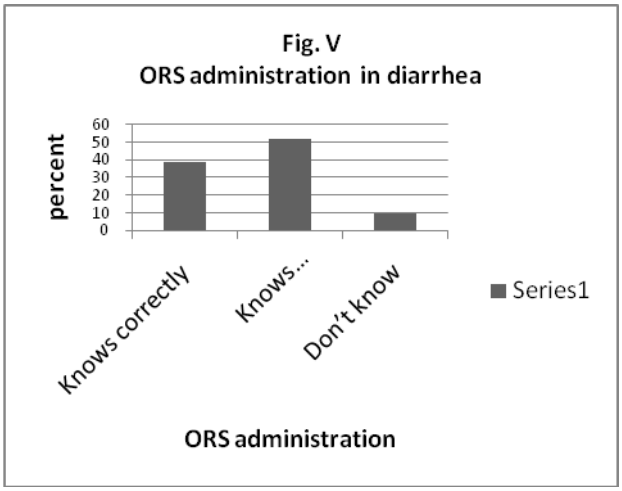


Fig. V
ORS administration in diarrhea
percent
60
50
40
30
20
10
0
Knows correctly
Knows...
Don't know
Series1
ORS administration

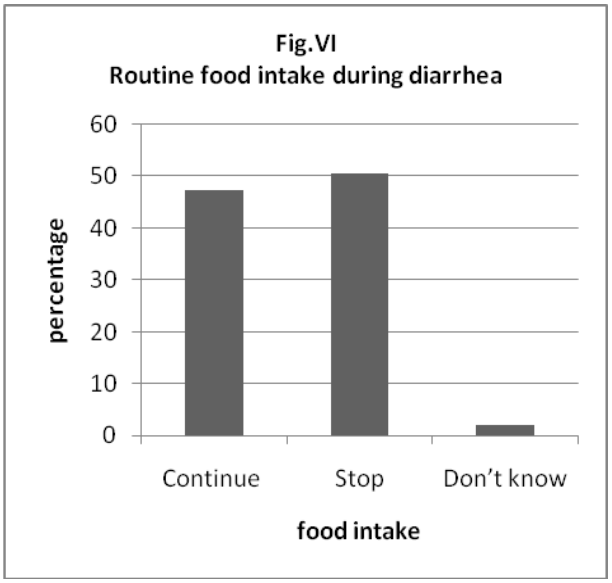


Fig.VI
Routine food intake during diarrhea
percentage
60
50
40
30
20
10
0
Continue
Stop
Don't know
food intake

DISCUSSION

Acute watery diarrhea is a self limiting disease and over 90% of cases can be successfully treated with oral rehydration therapy and continued feeding without using anti-diarrheal drugs.[15]Socio-demographic factors such as mothers' education, employment, age of the mothers are associated with mothers' knowledge about Diarrhoea and its management. Although mothers were aware of diarrhea and its home management, the level of awareness was variable and often insufficient. The current study revealed that 92(96.8%) mothers considered either increased number of stools or liquid consistency of the stools or both as diarrhea. According to other studies, 63.6%[16], 64.3%[17] and 75%[18] of mothers had good knowledge towards Diarrhoea and its management. Numerous studies in the recent past have documented that knowledge about oral rehydration solution has increased .[19,20]In our study 90.5% mothers had knowledge of oral rehydration solution, while in other studies 95%[19] and 97.6% of the mother had information about ORS and also its usefulness in the management of dehydration due to diarrhea[21]. In a similar study by Ahmad A et al, at Rawalpindi, Islamabad, 75% of mothers[22] and a study done by Bhatia et al, 86.7% of mothers claimed that they had knowledge about oral rehydration solution[23]. The difference in percentage is the time factor for having an impact on maternal knowledge and practices about oral rehydration solution, which is being projected through mass media and health professionals.

As far as preparation of oral rehydration solution is concerned, in our study 73(76.8%) mothers correctly recalled the preparation of oral rehydration solution which is in line with the study by Aiza M et al[19] 228(76%). Taha found 64% of mothers and another study done at Lahore, 69.3% of mothers correctly prepared oral rehydration solution[24,25]. This increase in percentage could be due to promotional effects of control of diarrhea disease programme supported by Government of Pakistan[26].

In the current study,64(67.4%) mothers were in favor not to self medicate, the figures are positively high as discovered by Aiza M et al[19] where only 21% of patients found against self medication.In our study during diarrhoea 50.5% mothers stop feeding during illness. In another study feeding was stopped or reduced in 96 (32%) of cases[19]. In a study by Khan MA et al, same diet as before diarrhoea was given in 59.9% of cases and in 40.6% of cases either feeding was stopped or reduced in quantity[27]. While another study revealed that almost half of the mothers 43.9% reduced or stopped usual food or breast fed, 48.6% gave usual amount of food or breast feed and only 7.5% of them increased amount of food or breast feed to children with diarrhea[28]. Similar findings have been reported by other workers.[29] Food intake should never be restricted during or following diarrhoea, rather the goal should be to maintain the intake of energy and other nutrients at a higher level. CDC recommends that children receiving semisolid or solid foods should continue to receive their usual diet during episodes of diarrhoea[30].

In the current study 28.4% mothers blamed dirty hands as main factor of diarrhea in another study more than half of the FGD participants mentioned teething as the main cause of diarrhoea[31]. In another study in rural community of Kenya, 58.2% reported contaminated water as principal cause of diarrhoea[32].

CONCLUSION

Although mothers' knowledge about use and preparation of oral rehydration solution has increased yet, great effort is still needed to educate mothers about recognizing signs of dehydration, method of ORS preparation and quantity of oral rehydration solution to be given after each loose motion. It is necessary to promote the concept of continued routine feeding practices during illness to handle this problem carrying high morbidity and mortality.

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