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Knowledge, Attitude and Practices Regarding Diarrhoea and Its Management among Mothers of Under Five Children at UHTC Vijayapura: A Cross Sectional Study

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ABSTRACT

Background: Children are our supreme asset and they are the future human resource of the country. Under five, a highly vulnerable group constitutes 13% of the total population in India. The objectives are to assess the knowledge and attitude of mothers of under five children regarding diarrhea and to know the practice of mothers of under five children regarding management of diarrhea.

Methods: A cross-sectional study was carried out during June 2018-Navember 2018. A structured and pre-tested questionnaire was administered to all the mothers of under-five children in the study area.

Results: Of the 160 mother's majority were in the age group of 21-25yrs. The diarrhoeal prevalence was 38 %. 64 % could define diarrhoea correctly and 94.7% of them had heard of ORS.89.76% of mothers sought treatment from private doctors when their children suffered from diarrhoea.

Conclusions: Lack of education in mothers was found to be an obstructing factor for the appropriate utilization of ORS in the community. Although awareness regarding spread of diarrhoea and ORS was adequate in this community, knowledge regarding continuation of feeding and danger signs was deficient.

Key words: diarrhoea, Oral rehydration, home available fluids, Health Knowledge, Attitudes, Practice.

INTRODUCTION

Diarrhoea remains the second leading cause of death among children under five globally. Nearly one in five child deaths – about 1.5 million each year – is due to diarrhoea. It kills more young children than AIDS, malaria and measles combined[1].Children are our supreme asset and they are the future human resource of the country. Under five, a highly vulnerable group constitutes 13% of the total population in India. According to WHO, Passage of 3 or more than 3 loose of stool or watery stools per day or considers as abnormal by the mothers or stools more frequent than normal for a child is considered as diarrhea[2].

According to WHO Guidelines for the management of diarrhoea; anti-diarrhoea, anti-amoebic and antibacterial have little role to play. Community Health education is the utmost importance for the effective case management, since it has potential to establish productive contact between the health services and the community to increase capability of families to recognize the danger sign of diarrhoea in children and to encourage appropriate and early case seeking behaviours. Effective Health education can only be provided on the basis of an accurate understanding of prevailing knowledge, attitude and practices (KAP) of the community. Therefore, it is necessary to have relevant information on KAP of mothers about Diarrhoea for successful implementation of control activities[3].

Contaminated weaning food, inappropriate feeding practice, lack of clean water, poor hand washing, limited sanitary disposal of waste, poor hous-

ing conditions, and lack of access to adequate and affordable health care are aggravated factors of the under 5 diarrheal disease[4]. Rotavirus is among the commonest diarrheal pathogen in children worldwide that causes about one-third of diarrhea-associated hospitalizations and 8,00,000 deaths per year [5]. Rotavirus can cause intestinal losses of fluid, electrolyte and nutritional deficiency which progresses rapidly to cause dehydration and death[6].

One of the prime goals of millennium development goals & National health mission (India) is to accelerate efforts towards reduction of childhood mortality. Diarrhoea is one of the important contributors of under-five mortality and most of these deaths are clustered around summer and monsoon season. To address this issue effectively, ministry of health and family welfare, India in conjunction with UNICEF has initiated a nationwide campaign known as intensified diarrhoea control fortnight (IDCF), which is conducted from 28th July to 8th August of every year from 2014 with the ultimate aim of 'zero child deaths due to childhood diarrhoea'. IDCF also aims to achieve improved coverage of essential lifesaving commodity of ORS, zinc dispersible tablets and practice of appropriate child feeding practices during diarrhea[6].

Information on factors playing role in diarrhoeal 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 attitude of mothers of under five children regarding diarrhea and to know the practice of mothers of under five children regarding management of diarrhea.

MATERIALS AND METHODS

We carried out a community based cross sectional study from June 2018 – November 2018. The study area is Urban Health Training Centre BLDE Shri B. M. Patil Medical college Vijayapura.

Sample size: With anticipated Proportion of Dietary practices among mothers 50.5%[7], the minimum sample size is 160 mothers with 99% level of significance and 10% absolute error. Formula used was $\mathbf{n=z^2\ p*q/d^2;}$ where Z= Z statistic at α level of significance; d^2= Absolute error; P= Proportion rate; and q= 100-p

A structured and pre-tested questionnaire was administered to the mothers of under-five children through door-to-door survey. Verbal informed consent was obtained before interviewing each participant. Questions were standardized in the local language to ensure uniformity in data collection. The questionnaire contained sections on socio-demographic data and the knowledge regarding diarrhoea (signs and symptoms, complications and management) along with attitude and practices followed for its prevention and management. The questions were framed as multiple choice questions with opportunity to choose more than one option in some questions. We also assessed the awareness of mothers regarding danger signs in diarrhoea. Only those mothers whose children had diarrhoea in the past month were evaluated for their actual practice and treatment seeking behaviour. To assess whether Knowledge Attitude and Practice was good, average or poor, mean score of the participants was calculated and SD was also calculated. Participant with mean score -1 SD was considered to be having poor score. Mean score -1SD to mean score +1SD was considered to have poor score. Score more than mean score +1SD was considered to be good score. For the questions on attitudes there were 11 points, and attitude was graded as negative and positive depending on the total scores. Those who scored equal to or less than the mean were labelled negative while a score above the mean was labelled positive[8].

The study targeted to interview the mothers of the household for her youngest child five years old and below. Mothers that had been resident in the slum area for less than a year were excluded from the study. The target sample size for this study was estimated at 160 mothers with children belonging to underfive age group. Systematic random sampling method was used to select the households. In case the selected household did not fulfil the selection criteria, the next household that fulfilled the criteria was selected. Data analysis was done using mean, standard deviation, Chi Square test and presented in the form of tables.

RESULTS

Table shows that of the 160 mothers, 3(1.8%) were in the age group of 15-20 years, majority were in the age group of 21-25 years 97(60.6%) and 60(37.6%) were in the age group of 26-30 years. 90(56.2%) mothers of under five children belonged to a joint family and 70(43.7%)were from a nuclear family. Majority 105(65.7%) of mothers were illiterate and of the literates 29(18.2%) had their primary education, 22(13.7%) till secondary, 2(1.2%) till PUC and 2(1.2%) had completed their graduation. It was seen that maximum number of mothers were house wives 112(70.2%) and 44(27.5%) were labourers.

Table 2 Knowledge of mothers regarding causes of diarrhoea. Most of the mothers 103 (64.2%) provided right description for the diarrhoea as per WHO definition.

Table 1: Demographic characteristics of the 160 mothers of under-five children

Category	Mother (%)
Age in Years	
15-20	3 (1.8)
21-25	97 (60.6)
26-30	60 (37.6)
Gender	
Males	87 (54.4)
Females	73 (45.6)
Type of Family	
Nuclear	70 (43.75)
Joint	90 (56.25)
Education of Mother	
Illiterate	105 (65.7)
Primary	29 (18.2)
Secondary	22 (13.7)
PUC	2 (1.2)
Degree	2 (1.2)
Occupation of Mother	
Govt. Employee	2 (1.25)
Farmer	2 (1.25)
Labour	44 (27.5)
House Wife	112 (70)

Table 2: Knowledge of mothers of under five children regarding causes of diarrhea

Causes of Diarrhoea	Mother (%)
Teething	135 (84.3)
Drinking contaminated water	128 (80)
Eating food exposed to flies	132 (82.5)
Unclean feeding bottle	83 (51.8)
Worm infestation	92 (57.5)
Eating contaminated food	109 (68.1)
Eating Hot-Spicy foods	98 (61.2)
Poor hygienic practices	45 (28.1)
Eating mud	24 (15)
Over eating	6 (3.7)
Seasonal variations	5 (3.1)
Don't know	4 (2.5)

Table 3: Mothers attitude towards diarrhea

Attitude level	Mother (n=160) (%)
Negative	55 (34.3)
Positive	105 (65.7)

Table 4: Distributions of mothers of under five children according to practices adapted regularly to prevent diarrhea

Practice adapted to prevent Diarrhoea	Mother (%)
Hand wash before cooking, eating/after defication	139 (86.8)
Closing the lids of drinking water sources	145 (90.6)
Avoiding dipping hand in vessel	141 (88.1)
Filtering/boiling drinking water before use	56 (35)
Regular cleaning of drinking water vessels	135 (84.3)
Washing fruits and vegetables before use	140 (87.5)
Washing hands before feeding the child	93 (58.1)
Proper disposal of reuse	52 (32.5)

Only 29.71% of the study participants identified at least one danger sign of diarrhoea. Rest of them had no knowledge about it. Regarding the knowledge about the cause of diarrhea mentioned by mothers were teething 135 (84.3%), drinking contaminated water 128 (80%), unclean feeding bottle 83 (51.8%), eating mud 24 (15%) and seasonal variations 5 (3.3%).

Table 3 shows mothers attitude towards diarrhea. Almost all the mothers (160) want treatment when their children have diarrhea. 147 (91.8%) prefer a public health facility, and 135 (84.3%) want immediate treatment. During an episode of diarrhoea, 98 (61.2%) mothers said they want children to receive ORS, 134 (83.9%) want other fluids, 129 (80.6%) preferred breastfeeding and other fluids.

Table 4 indicates the practices such as hand washing before cooking/eating 139 (86.8%), closing the lids of drinking water sources 145 (90.6%), avoiding dipping hands in vessels 141 (88.1%), regular cleaning of drinking water vessels 135 (84.3%), washing fruits and vegetables before use 140 (87.5%) and proper disposal of refuse 52 (32.5%) were adapted to prevent diarrhea in children.

DISCUSSION

Although use and availability of ORS can reduce the morbidity and mortality associated with diarrhoeal diseases it is far from being highly effective especially in developing countries due to lack of awareness about availability and use of oral rehydrating solution for management of diarrhoea. Also complicating the issue is lack of understanding regarding the role of sanitation and hygiene in reducing the incidence of diarrhoea.

The study shows that mothers had a good understanding of diarrhoeal diseases (93.13% of them) as per the description given by WHO [9].In our study majority of the mothers were in the age group of 21-25 years 97(60.6%) and 60 (37.6%) were in the age group of 26-30 years. 90(56.2%) mothers of under five children belonged to a joint family and 70(43.7%) were from a nuclear family. Majority 105(65.7%) of mothers were illiterate and maximum number of mothers were house wives 112(70.2%) and 44(27.5%) were labourers. The findings were similar with study conducted by kapoor at rewa in 1993 and Yasmin Mumtaz in 2014 [10, 11].

In our study we found that all the mothers had good knowledge and attitude for personal hygiene factors. Most of the mothers 103 (64.2%) provided right description for the diarrhoea as per WHO definition. Only 29.71% of the study participants identified at least one danger sign of diarrhoea. Rest of them had no knowledge about it. Regard-

ing the knowledge about the cause of diarrhea mentioned by mothers were teething 135 (84.3%), drinking contaminated water 128 (80%), unclean feeding bottle 83 (51.8%), eating mud 24 (15%) and seasonal variations 5 (3.3%). In a study conducted in south east province of Iran, Khalili, et al reported 81% and 58% mothers accepting unsafe water and unclean hands respectively as causes of diarrhoeal illness.[12] Cabatbat, et al in their study conducted in Philippines reports 77%, 34% and 23% mothers acknowledging unsafe drinking water, failure to wash hands after defecating, and after handling faeces respectively as common reasons for diarrhoeal diseases.[13] Surprisingly, in an Indian study conducted earlier, it had been reported just 15% and 6% mothers knowing that dirty water and dirty environment could cause diarrhoea.[10] In our study, nearly one third of the mothers were of the misconception that teething is the reason for development of diarrhoea. The magnitude of this misconception is also documented in other studies conducted in India as well as Iran, in these studies the magnitude is 64% and 48% respectively. [10, 12]

Almost all the mothers (160) want treatment when their children have diarrhea. 147 (91.8%) prefer a public health facility, and 135 (84.3%) want immediate treatment. During an episode of diarrhoea, 98 (61.2%) mothers said they want children to receive ORS, 134 (83.9%) want other fluids, 129 (80.6%) preferred breastfeeding and other fluids. In the study conducted in urban slum of New Delhi showed that 71.3% of mothers sought medical advice and nearly half of mothers went to doctors and one third sought treatment from private practitioner.[14,16.]

Regarding practices such as hand washing before cooking/eating 86.1%, closing the lids of drinking water sources 90.6%, regular cleaning of drinking water vessels 84.3% were adapted to prevent diarrhoea in children. The result were similar with study on management of childhood diarrhoea [14] and study of rural mothers in Haryana.[15]

CONCLUSION

Lack of education in mothers was found to be an obstructing factor for appropriate utilization of ORS in the community. Although awareness regarding spread of diarrhoea and ORS was adequate in this community, knowledge regarding continuation of feeding and danger sig ns was deficient. Thus educating the mothers of under-five children regarding correct practices of home management of diarrhoea is likely to further reduce diarrhoea morbidity and mortality.

Wherever necessary, an attempt was made to fill the gaps in knowledge and practice of mothers. After the data collection, health education was given to those who didn't practice Exclusive Breast Feeding and who couldn't maintain hygiene of feeding bottle. They were also educated regarding correct way and timing of using ORS, sanitary methods of disposing faeces, hand washing technique, household methods of purifying drinking water and vaccination.

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