

Original Research Article

Childhood diarrhoea: assessment of knowledge, attitude and practices among mothers attending the tertiary care hospital: an observational analytical study

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ABSTRACT

Background: Diarrhoea is a major killer of children under-five, accounting for about 8% of deaths. For children aged under-five years, a median of three episodes of diarrhea occur per child-year. The aim of the present study was assessment of knowledge, attitude and practice of mothers of under-five children.

Methods: All mothers of under-five years who attended out-patient department of Pediatrics within the study period were interviewed. A total 200 mothers were assessed regarding the knowledge, attitude and practices towards childhood diarrhoea.

Results: Majority of mothers were aware of the definition and cause of diarrhoea (77% and 55% respectively). On the contrary, knowledge regarding preparation and use of home-made ORS was not known to majority of mothers. Regarding practices of mothers, 100% of mothers were using safe drinking water. However, only 60% and 30% practiced hand-washing after defecation and before handling food respectively.

Conclusions: Mothers need to be encouraged to start ORS before consulting a doctor. Personal and food hygiene practices need to be improved among the study population.

Keywords: Childhood diarrhoea, Dehydration, Oral rehydration salt, Oral rehydration therapy

INTRODUCTION

Diarrhoea is the second leading cause of death in children under-five years of age. It is defined as the passage of loose, liquid or watery stools more than three times a day. However, the consistency and character of stools is more important than the number of stools.¹

Approximately, 0.6 million children less than five years were killed due to diarrhea in 2012.² The current estimates in under-five suggest that about 1.4 billion episodes of diarrhea per year with 9 million hospitalizations worldwide, with a loss of 62 million

disability-adjusted life years (DALYs).³ The cause of death due to diarrhoea is mainly dehydration which can be prevented by prompt treatment with oral fluids both home-made and commercial ORS packets. Diarrhoeal disease causes a heavy economic burden on the health services. Much attention has been given to acute diarrhoeal disease and its management over the last decade, which is dominated by advances in oral rehydration technique (ORT) and through integrated management of childhood illness (IMCI).⁴

Based on the etiology studies conducted in India, it is estimated that approximately 40% of cases of diarrhoea

are due to rota-virus, however bacterial infections are also common. Epidemiological evidence shows that the important risk behaviours that encourage human contact with fecal matter include lack of hand-washing practices especially after defecation and before handling of food. Thus people can be made aware of prevention and management of diarrhoea only after assessing their current knowledge, attitude and practices.⁵

Aims and objectives

Assessment of knowledge, attitude and practice of mothers of under-five children.

METHODS

After receiving ethical approval, a cross-sectional descriptive study was undertaken in Sheri Kashmir Institute of Medical Sciences, Bemina from April 2016 to September 2016. In order to get an idea about approach of urban mothers towards diarrhoea management, the mothers belonging to District Srinagar, the capital city of Kashmir were included in the study. All mothers of under-five years who attended out-patient department of Pediatrics within the study period were interviewed. The children who visited hospital with care-takers other than mother were excluded from the study. After obtaining written consent from the mothers, data was collected from 200 mothers by face-to-face interviews using pretested, self-designed study instrument containing questions related to their socio-demographic variables, knowledge, attitude and practices about diarrhoea management.

Statistical analysis

The obtained data from the mothers was tabulated and analyzed using descriptive statistics.

Table 1: Socio-demographic variables of mothers.

Age (years)	Number (%)
< 30	30(15%)
30- 35	122 (61%)
>35	48 (24%)
Education of mothers	
Illiterate	23(11.5%)
Primary	32(16%)
Middle	36(18%)
High school	45(17.5%)
Higher secondary	39 (19.5%)
Graduate and above	25(12.5%)

RESULTS

A total of 200 respondents were included in the study. Maximum mothers (61%) were in the age group of 30-35 years and were literate as shown in Table 1. Majority of mothers were aware of the definition and cause of diarrhea (77% and 55% respectively). However, knowledge regarding signs of dehydration and preventive methods for diarrhoea were known to mothers to some extent only. On the contrary, quantity and preparation of Home-made ORS were not known to majority of mothers as shown in Table 2. Regarding practices of mothers, 100% of mothers were using safe drinking water. Only 60% and 30% practiced hand washing after defecation and before handling food respectively as shown in Table 3. Only 5% of mothers managed their child's diarrhoea at home as shown in Table 4.

DISCUSSION

Childhood diarrhoea is the most common cause of morbidity and mortality in children under the age of five years. So there is a need for introspection of the health care of children with respect to management of diarrhoea

Table 2: Knowledge of mothers regarding diarrhea.

Variables	Yes (%)	To some extent(%)	No(%)
Definition*	154 (77%)	46 (23%)	0
Cause of diarrhoea**	110 (55%)	70 (35%)	20 (10%)
Signs of dehydration***	68 (34%)	94 (47%)	38 (19%)
Preventive methods****	30 (15%)	161 (80.5%)	9 (4.5%)
Continue giving breast milk/foods during episodes of diarrhoea	117 (58.5%)	52 (26%)	31 (15.5%)
Role of ORS	156 (78%)	44 (22%)	0
Preparation of Homemade ORS	28 (14%)	80 (40%)	92 (46%)
Quantity of ORS to be Given	12 (6%)	46 (23%)	142(71%)

*Loose, watery stools more than three times a day.¹

** contaminated food, water or food exposed to flies and micro-organisms.¹

*** dry tongue, decrease urine output.¹

**** proper storage of food and hand washing before handling food and after defecation.¹

Table 3: practices by mothers for prevention of childhood diarrhea.

Practice	Yes (%)	To some extent(%)	No(%)
Use of safe drinking water	200 (100%)	0	0
Practicing hand washing before handling food	60 (30%)	30 (15%)	110 (55%)
Practicing hand washing after defecation	120 (60%)	56 (28%)	24 (12%)
Use of ors for management of diarrhoea	116 (58%)	44 (22%)	40 (20%)
Sanitary disposal of excreta	190 (95%)	10 (5%)	0
Immunization done for rotavirus	86 (43%)	0	114 (57%)

Table 4: Health seeking behavior.

Health seeking behavior	Number (%)
Contact with nearest government health facility	114 (57%)
Contact with private practitioner's clinic	76 (38%)
Home-based treatment given	10 (5%)

at family level to know as to where we stand today, so that activities can be designed for the mothers/caretakers of children to prevent consequences of diarrhoeal diseases. With this rationale the present study was conducted to assess the knowledge, attitude and practice of mothers regarding management of diarrhoea.

In the present study, maximum mothers (61%) were in the age group of 30-35 years. 11.5% of the mothers were illiterate, 51.5% had studied up to high school level and 12.5% were graduates or post-graduates. Similar findings were reported by Al-Atrushi et al from Iraq where majority (64%) mothers were in the age group of 30-35 years and 40.35 mothers had studied up to secondary school, which is in comparison to our study.⁶

In the present study, majority of mothers were aware of the definition and cause of diarrhoea (77% and 55% respectively). However, knowledge regarding signs of dehydration and preventive methods for diarrhoea were known to mothers to some extent only. It is a common misbelief that breast feeding and other foods should be stopped during an episode of diarrhoea. In the present study, 58.8% mothers continued to feed their child, while 26% fed their child to some extent and remaining 15.2% stopped to feed. On the contrary, only 6.67% of mothers discontinued feeding during diarrhoea in a study conducted by Shridevi et al.⁷ Scientifically breast milk contains many nutritive and anti-infective components which help to cut down duration and frequency of loose stools.⁸ On the contrary, in this study the preparation and quantity of home-made ORS were not known to majority of mothers. Similar findings were found by Shah et al in Aligarh in his study.⁹ A study conducted by Shridevi et al in Vijaywada, Andhra Pradesh reported that knowledge regarding definition of diarrhoea was found in 93.3% of the study population, which is higher in comparison to our study.⁷ 55% of mothers in our study were aware of causes of diarrhoea, which is in comparison to the study conducted by Shridevi et al in Vijaywada.⁷ Regarding signs of dehydration and preventive methods of diarrhoea less than half of the study subjects were aware. 78%

mothers knew the importance of ORS for diarrhoea management but only 12% were aware of preparation of home-based ORS and only 6% knew about quantity of ORS to be given for each episode of diarrhoea. Our results were comparable to findings of Masihi et al who found that 74% mothers considered ORS enough for treating diarrhoea. However in their study maximum subjects had fairly good knowledge of preparation of home-based and its quantity to be given each time.¹⁰

Regarding practices and health seeking behavior of mothers, 100% of mothers were using safe drinking water. Only 60% and 30% practiced hand-washing after defecation and before handling of food respectively. Shridevi et al found 100% of study subjects used safe - water for consumption and practiced hand washing after defecation. However, only 28.8% study subjects practiced hand washing before handling of food, which in comparison to our study.⁷ In the present study 58% mothers reported of administering ORS to their children during diarrhoeal illness which is slightly lower than the findings of Masihi et al who conducted a similar study in Pakistan.¹⁰ 43% mothers in present study administered Rota -virus vaccine to their children in private sector. Only 5% of mothers managed their child's diarrhoea at home while remaining 95% contacted health care facilities either in government or in private sector. This shows that more awareness needs to be generated among the study population regarding use of home based ORS/ fluids as a first line treatment during an episode of diarrhoea. As most diarrhoea's are viral in children, they usually resolve in 2-3 days, and what is required is the management of dehydration in such children and decrease mortality among under-five children.

CONCLUSION

Knowledge regarding preventive methods was known only to some extent among the study population. Although majority of them were aware of importance of ORS for management of diarrhoea, only few among them knew about preparation and use of home-made ORS.

Mothers need to be encouraged to start ORS before consulting a doctor. Personal and food hygiene practices needs to be improved among the study population. Thus, lapses in the knowledge, attitude and practices of mothers needs to be fulfilled so that we can reduce diarrhoea related morbidity and mortality among the under-five children by promoting simplest measure of using ORS for management of diarrhoeal diseases via IEC efforts through mass media and education of mothers while visiting paediatric clinics both in government and private settings.

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