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Original Research Article

Knowledge regarding diarrhoea prevention and its management and its determinants among mothers of under 5 age children in urban area of Sangareddy, Telangana

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ABSTRACT

Background: Diarrhoea is the second leading cause of death in children under five years of age, and is responsible for killing around 5,25,000 children every year. A major determinant of child health is the health and knowledge of the mother. So the knowledge, attitude and health practices of the mothers directly reflect on the health and vitality of the child.
Methods: A community based cross sectional type of study was conducted among mothers who had children of 0-5 years of age using pre designed, pretested structured questionnaire. Study area was 5 urban slum pockets in Tertiary care hospital of Sangareddy, Telangana. 255 mothers were selected for the study using random sampling technique.
Results: Out of the total 255 study populations most of the mothers were literate, living in nuclear families belonging to Hindu religion. About half of the mothers had knowledge regarding diarrhoea and 71.4% of the mothers have given hospital treatment for it. When asked about 78.4% of mothers told that they follow preventive health practices. Majority of mothers had a good knowledge regarding steps to be taken by health care facility during diarrheal attack.
Conclusions: On the basis of the present study, there was a significant association of knowledge regarding diarrhoea with maternal literacy and socio economic status. This study brought out the health seeking behaviour of mothers of under five children.

Keywords: Knowledge, Diarrhoea, Mothers, Preventive health practices

INTRODUCTION

Worldwide there are 2.21 million deaths every year due to diarrhoea and in India 192 million episodes occur in under five children. The estimated under five deaths is 7,00,000 per year in India.[1,2] The prevalence of diarrhoea among under five children constitutes 22% of the childhood morbidity. Diarrhoea is still the major killer of children under 5, although its toll has dropped by a third over the past decade. It killed more than 1600 children under 5 years of age every day in 2012.Most of the deaths occur among children less than 2 years of age.[3]

A major determinant of child health is the health and knowledge of the mother. It has been seen that the mother is the main caretaker for the child in almost all societies. So the knowledge, attitude and health practices of the mothers directly reflect on the health and vitality of the child. Most of morbidity due to diarrhoea can adequately manage at home.

Diarrhoea in under five children forms important cause of under five deaths in developing countries.[4] Rotavirus forms a major cause for diarrheal diseases in children less than 2 years of age. Very few studies have been conducted especially in assessment of unmet needs of

mothers of under five children. Hence this study may help to bring out the aspects of knowledge and practice on prevention of diarrhoea as well as prevalence of diarrhoea in under five children.

There is an imperative need to know about prevalence of diarrhoea and to assess the existing gap between knowledge and practice such as hand washing and use of sanitary toilet. This is more important in case of mothers with under five children, in whom the morbidity and mortality to diarrhoea is very high. There is also a need for supply of safe drinking water and maintenance of clean environment through provision of sanitary latrine and proper disposal of refuse.

Diarrhoea can also spread from person-to-person, aggravated by poor personal hygiene. Food is another major cause of diarrhoea when it is prepared or stored in unhygienic conditions. Unsafe domestic water storage and handling is also an important risk factor.

This gap between knowledge and practice regarding control of diarrhoea is brought about by asking each mother about methods to control diarrhoea like hand washing with soap and water after passing stools and before feeding the child and the ingredients for preparation of salt and sugar solution if they responded positively.

METHODS

This study is a community based cross sectional type of study conducted for a period of 12 months (January 2016-December 2016). Study area is 5 urban pockets selected randomly from zone 1 of Municipality of Sangareddy. The total population of study area is 5,245 and the families with under five children were 296.[5] The 5 urban pockets were selected randomly from the total 29 pockets of ward 1 Municipality of Sangareddy by using lottery method. All the mothers with under five children are selected for the study. The total under five mothers were about 296 and only 255 were able to be interviewed.

Data collection

Informed written consent was taken from the study participants prior to the start of the study. A pre designed, pre tested questionnaire was used for the study. The investigator went to interview the total families (houses) of 282 by house to-house visit and were able to get data by interview of 255 mothers.

Data analysis

Statistical analysis was done using SPSS version 17.0 and the details regarding mother's knowledge and attitude regarding diarrhoea prevention was obtained. Data was summarized in percentages and proportions. Statistical associations was done using Chi square test wherever necessary with $p<0.05$ and considered statistically significant.

RESULTS

Socio-demographic profile

Out of the total 255 study population it was seen that majority of the women were educated up to higher secondary 53% and the illiterate women were 27%.

With regards to type of family, most of the families in the present study were nuclear families 235 (92.3%) and then followed by joint families (14%).

Out of 255 families surveyed 173 were Hindus which constituted 68.6% of the total. 55 were Muslims which was about 21.5% of the total and 27 were others which constituted 9.9% of the total families.

Table 1: Socio-demographic profile of the study population (n=255).

Demographic variable	Frequency	Percentage (%)
Mothers education status		
Illiterate	68	27
Primary school	46	18
Secondary school	134	53
Graduate and above	7	3
Type of family		
Nuclear	235	92.3
Joint	14	5.7
Three Generation	6	2
Religion		
Hindus	173	68.6
Muslims	55	21.5
Others	27	9.9
Occupation of head of family		
Professional	6	3
Clerical job	11	4
Business	26	10
Small scale business	43	17
Skilled labor	63	25
Non skilled labor	78	30
Unemployed	28	11
Socio economic status		
Class I (upper)	5	1.96
Class II (upper middle)	31	12.15
Class III (lower middle)	56	21.96
Class IV (upper lower)	136	53.33
Class V (lower)	27	10.58

The occupation of fathers of under five children were mostly daily non skilled labourers (working as part or full time labourers) were 78 which constitute 30% of population. It was found that 28 fathers were

unemployed. The unemployment in the study households is 11%. Skilled labourers were 63 which constitute 24.7% of study households. Small Scale Business includes Tea Shops and Tricycle Vendors. 26 are businessmen which is 28.2% of total. 6 are professionals and those holding clerical jobs accounting 5.4% of the total.

Modified Kuppuswamy scale was used to determine the socio economic status of the study population.[6] Based on that majority of the families belonged to class IV (53.33%) followed by class III (21.96%).

Knowledge of the mothers regarding diarrhoea:

When asked about awareness about control of diarrhoea in children which includes questions regarding hand washing practices, drinking boiled and cooled water, continued breast feeding, 56.2% of mothers were able to list the methods to be adopted in control and transmission of diarrhoea.

Knowledge regarding any of available home fluids in the treatment of diarrhoea, 54.2% of mothers answered yes to the question of giving home available fluids during diarrhoea. 45.8% of mothers said they don't know about home available fluids and the importance of giving the same in the treatment of diarrhoea in children.

About two third (67.4%) of mothers had knowledge regarding ORS preparation and Feeding practice of children, 32.6% were not aware about ORS.

Table 2: Knowledge of mother's regarding diarrhoea.

Variable			%
Control and transmission of diarrhoea	Aware	143	56.2
	Unaware	112	43.8
Home available fluids	Yes	138	54.2
	No	117	45.8
ORS preparation and feeding practice	Yes	172	67.4
	No	83	32.6

Table 3: Treatment given by mothers for diarrhoea.

Type of treatment taken	Frequency	Percentage (%)
Hospital treatment	182	71.37
Over the counter drugs	45	18
Home available fluids	25	10
No treatment	3	1.18

Treatment given by mothers for diarrhoea

Almost 3/4th i.e., 71.4% of mothers said that they have taken treatment at primary and secondary care centres in both government and private hospitals.18% of mothers said that they will get medicine at local medical shops at first and 1.18% of mothers told that they won't give any treatment for diarrhoea and will observe the child for improvement for 1or 2 days. 10% mothers said that they would give native treatment in the form of leaves and ginger juice.

Preventive health practices by mothers

When asked about 78.4% of mothers told that they follow either one the following health practices.

Table 4: Preventive health practices by mothers.

		%
Fly control of measures	Yes	78
	No	22
Hand washing with soap and water	Yes	74
	No	26
Drinking boiled water	Yes	82
	No	18

Association between demographic factors and KAP of mothers:

Among study population there was higher knowledge regarding diarrhoea in literate mothers belonging to higher Socio economic status. Therefore there was a statistical significance between KAP about diarrhoea with socio economic status and literacy status of mother ($p<0.05$). Remaining socio demographic factors including type and religion of family, occupation of the head of family were not found to be statistically significant.

DISCUSSION

The present study was conducted in tertiary care hospital of Sangareddy with an objective to determine the knowledge of diarrhoea among the mothers of under 5 age children. For the purpose of study total 255 families were taken to know the health-seeking behaviour of mothers.

Regarding knowledge on control and transmission of diarrhoea, more than half of the mothers i.e., 56.2% of mothers said that they were aware about its cause and transmission and 43.8% were not aware which was similar to study by Padhy et al showing 47% mothers had knowledge about diarrhoea, 52% about the aetiology and 58% about risk factors of diarrhoea.[7]

A cross-sectional study conducted in Karachi by Mumtaz, Zafar and Mumtaz observed that most of the mothers (47%) did not know the causes of diarrhoea.[8] In this study mothers considered teething, falling from height, evil eye, eating pulses or hot food and weather changes as the predisposing factor which is not significant with our study.

When asked about knowledge about home available fluids, ORS and both ORS and home available fluids

about 63% of mothers were aware about both ORS and home available fluids. A study by Sutariya et al shows 90.60% episodes of diarrhoea were treated at home with ORS and/or home available fluids.[9] The unmet needs of house to house distribution of ORS packets during monsoon season observed in this study was recommended in a similar study done by WHO-diarrhoeal diseases control program (CDD). According to Pizzaro, Oral rehydration therapy (ORT), developed 30 years ago, has several advantages over intravenous therapy; it can be administered at home, at health clinics or in modern hospitals, by parents or by nurses or physicians.[10] A study by Stanly states that ORT use rate was found to be 65.2% much higher than other studies among literate mothers.[11] When asked to state all the home available fluids they know, about 70% of mothers mentioned rice gruel (Kanchi), buttermilk, salt and sugar solution as home available fluid. When asked about the reason for not giving home available fluids, they brought about the various misconceptions on home available fluids such as giving home available fluids (HAF) would increase the diarrhoeal episode and fear of increased vomiting in children.

About 71.4% of the mothers said that they would take their children to hospital (public and private) for treatment instead of starting with home treatment first. Only 10.2% of them said that they would start with home available fluids. In contrast to the above findings, study conducted by Sur et al in urban slums of Kolkata the first choice of treatment by the 428 subjects would be self- or parent-treatment and consulting a private allopathic practitioner.[12] In a study conducted at Mirzapur it was observed that most of the mothers sought treatment for their children from private practitioners (61%) which was similar to our study (71.4%).[13]

In the present study majority of mothers i.e., 78.4% told they were following either of the healthy practices like hand washing, drinking boiled water or using fly control measures. The findings of the study emphasis that planned health teaching is highly effective in increasing the knowledge and practices of mothers regarding prevention and management of diarrhoea.

CONCLUSION

On the basis of the present study, there was a significant association of knowledge regarding diarrhoea with maternal literacy and socio economic status. This study brought out the health seeking behaviour of mothers of under five children. It is recommended that nurses and other health professionals working in community should incorporate health education on the aetiology, prevention and management of the diarrhoea to establish productive contact between the health services and the community, to increase the capability of the families to recognize the danger signs of diarrhoea in children and to encourage appropriate and early care seeking behaviours.

Bridging the gap between community and health professionals appears to be feasible, through sustained and effective IEC campaign through mass media like print, television, FM radio and internet.

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