

A descriptive Study to Assess the Knowledge Regarding Prevention and Management of Diarrhea among Mothers of under five Children in Rural Areas of Ambala, Haryana

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Abstract: Diarrheal diseases rank among the top three causes of childhood death in the developing countries. On an average a child suffers from about 12 episodes of diarrhoea, 4 such episodes occurring during the very first year of life. Existence of malnutrition makes the child very much vulnerable to diarrheal diseases. An estimated 1.8 billion episodes of diarrhoea occur in each year and 3 million children under age of 5 year die due to diarrhoea. Diarrhoea kills nearly 5 lakh children a year in India.

Aim: To assess the level of knowledge regarding prevention and management of diarrhoea among mothers in rural areas of Ambala and to seek the association between knowledge score regarding prevention and management of diarrhoea among mothers in rural areas of Ambala with their selected sample characteristics.

Methods: A quantitative, non-experimental approach was used for this study. A cross sectional survey of mothers of under five children was used with non-probability purposive sampling. Total 200 mothers of fewer than five children. Self-structured knowledge questionnaires were used after validation. The data collected was done in selected rural areas (Sirasgarh, Dulyani and Barara) of Ambala, Haryana. Paper-pencil technique was used for data collection.

Result : Maximum of the mother (51.5%) had below average knowledge and (48%) had average knowledge whereas ,least (0.25%) mothers had good knowledge regarding prevention and management of diarrhea. This indicates that the level of knowledge was independent on age, religion, type of family, educational status, type of employment, working hours per day, family income per month, no. of children, no. of children under 5, sex of under 5 children, mode of defecation, previous history of diarrhea, treatment taken from, previous knowledge and source of information so there was no correlation with selected variables.

Conclusion: Mothers of under five children were having very average or poor knowledge regarding prevention and management of diarrhea. And it is independent of any variables. So more and more efforts should put to improve mothers knowledge regarding prevention and management of diarrhea as it is second leading cause of maternal mortality.

INTRODUCTION: A Child is a unique individual; he or she is not a miniature adult, not a little man or woman. The childhood period is vital because of socialization process by the transmission of attitude, customs, and behavior through the influence of the family and community. Family's cultural and religious belief, educational level and ways of living influence the promotion and maintenance of child health. Children are vulnerable to disease, death and disability owing their age, sex, place of living, socioeconomic status and a host of other variables. 1

WHO estimated that between 90000 and 153000 children are die from rotavirus infection per year. According to WHO more than 2.3 million children below 5 year of age die annually die about 334000 die from diarrhea related disease. The role of mother is important for management of diarrhoea their knowledge and practice critically important. Most of the diarrhoea disease, diarrhoea episode is treated by mother at home therefore knowledge in management of diarrhoea is related to its mortality and morbidity. WHO recommended that mother and caregiver should be able to identify the excessive thirst, sunken eye, decreased urine output, excessive restlessness, drowsiness and poor turgor. 8

Incidence of acute diarrheal disease in low socio economic status, poor maternal literacy, presence of under-five sibling in the family, birth weight, inadequate breastfeeding, malnutrition and poor sanitation and hygiene practices of the mother are associated with a higher incidence of diarrheal diseases in young children. Incidence of diarrheal diseases was observed to be maximum during the summer months followed by rainy and winter months. 5

The common leading disease which cause the death in under five children are Pneumonia, Diarrhoea, Fever, Malnutrition, Anaemia and Feeding problems .The occurrence of these diseases increase the mortality rate in under five children. The most prevalent diseases in under five children are Pneumonia that is first leading cause of mortality and diarrhoea that is the second leading cause of mortality in under five children. [2]

According to UNICEF study each child as on average in developing world suffer from diarrheal disease for more than 3 times a year. The occurrence Death of

children under 2 year of age that is (9.5% death in infants and 23-30% in under 5 age group children due to diarrhoea). Dehydration resulting from acute gastroenteritis is leading cause of child morbidity and mortality in the world. The American academy of pediatrics, WHO and centers for disease control and prevention all recommended oral rehydration therapy as the treatment of choice of most cases of dehydration cause by diarrhoea. Treatment guide line issued by WHO indicated that the most cases of childhood diarrhoea can be treated at home by increased fluid intake and continued feeding during diarrheal episode. In accordance with WHO guidelines the government of India promotes oral rehydration therapy which aims at reduction in 17% of death among under 5. Mortality and morbidity due to diarrheal disease can be effectively prevented if mothers are educated about

way and when oral rehydration therapy can be used and how correctly it can be used. So the researcher felt the need to give a planned teaching programme regarding prevention and management of diarrhoea.¹³

Methods & Material: A quantitative, non-experimental approach was used for the present study. A cross sectional survey design was used under which mothers of under five children were selected with non-probability purposive sampling technique. Total 200 mothers having under five children were selected for present study. Self-structured knowledge questionnaires were used after validation. The data collected was done in selected rural areas (Sirasgarh, Dulyani and Barara) of Ambala, Haryana. Data collection was done with paper pencil technique.

Results:

Frequency and percentage distribution of level of knowledge regarding prevention and management of diarrhoea among mothers

N=200

Level of knowledge	Range	Percentage (%)	Frequency (f) (Mothers)	Percentage f (%) (Mothers)
Very good	24-28	>75	0	0
Good	21-23	61-75	1	0.25
Average	15-20	51-60	96	48
Below average	0-14	<50	103	51.5

Maximum score: 28

Minimum score: 0

Area wise Mean, SD, Mean % & Ranking of knowledge score obtain by Mothers of under five children on structured knowledge questionnaire regarding prevention & management of diarrhoea.

N=200

S. No	Area	Max. Score	Mean	SD	Mean %	Rank
1	Concept	3	1.83	.688	61	II
2	Risk factor	4	2.25	.911	56	III
3	Causes	4	1.02	.733	26	VI
4	Clinical manifestation	3	1.39	.714	46	IV
5	Management	7	2.86	1.280	41	V
6	Prevention	7	4.91	1.299	70	I

The data presented in table 8 indicated that maximum of the mother (51.5%) had below average knowledge and (48%) had average knowledge whereas ,least (0.25%) mothers had good knowledge regarding prevention and management of diarrhoea and highest mean knowledge score was found in the area of the prevention (70) and ranked 1st, followed by concept

(61) ranked 2nd, risk factor (56) ranked 3rd, clinical manifestation (46) ranked 4th, management (41) ranked 5th, and least mean score was found in the area of causes (26) ranked 6th. The mean score for the level of knowledge in terms of percentage are calculated as the mean to the total number of group in the area therefore calculated in terms of the percentage.

ANOVA / t value association of sample characteristics with knowledge regarding prevention and management of diarrhoea among mothers of under 5 children.

N=200

S.No	Characteristics	mean score	SD	F	F/t Value	p Value
1	Age (in years)					
	21-25	14.2	3.253	3/196	0.17 ^F	0.916 ^(NS)
	26-30	14.4	2.768			
	31-35	13.86	2.905			
	more than 36	14	3.464			
2	Religion					
	Hindu	14.3	2.968	2/197	0.041 ^F	0.96 ^(NS)
	Muslim	14.12	3.308			
	Sikh	14.2	2.821			
3	Type of family					
	Joint family	14.32	2.969	2/197	0.025 ^F	0.975 ^(NS)
	Nuclear Family	14.25	3.015			
	Extended family	14	3.464			
4	Educational status					
	Non literate	14.43	2.809	4/195	1.491 ^F	0.206 ^(NS)
	Primary education	14.08	3.316			
	Secondary education	14.91	2.79			
	Higher secondary	13.72	2.7			
	Graduation	13.67	3.547			
5	Type of Employment					
	Home maker	14.39	2.994	3/196	1.264 ^F	0.288 ^(NS)
	Self employed	13.5	1.927			
	Private job	12.5	3.416			

	Government	12.6	3.647			
6	Working hours per day					
	Less than 4 hours	14.19	3.043	3/196	1.235 ^F	0.298 ^(NS)
	4-6 hours	14.92	2.873			
	7-8 hours	14.52	2.775			
	9- 10 hours	13.77	3.235			
7	Family income per month					
	Below Rs.5000	14.6	2.903	3/196	1.349 ^F	0.26 ^(NS)
	Rs.5001-10000	14.26	3.109			
	Rs.10001-15000	13.42	3.027			
	More than Rs.15000	14.41	2.852			
8	No. of children					
	1	14.1	3.062	3/196	0.3 ^F	0.825 ^(NS)
	2	14.27	3.104			
	3	14.58	2.745			
	4 and above	14.77	2.455			
9	Number of children under five year					
	1	14.23	3.102	2/197	0.978 ^F	0.378 ^(NS)
	2	14.23	2.717			
	3	16.67	2.082			
10	Sex of child who is under 5 year					
	Male	14.11	3.018	198	0.001 ^t	0.978 ^(NS)
	Female	14.49	2.955			
11	Mode of defecation at Home					
	Open	13.48	3.39	198	2.347 ^t	0.127 ^(NS)
	Closed	14.39	2.915			
12.a	Is there history of diarrhoea in under 5 year's child					

	Yes	14.17	3.03	198	0.021 ^t	0.884 ^(NS)
	No	14.67	2.822			
12.b	If yes, treatment taken from					
	PHC	13.94	2.943	4/195	0.39 ^F	0.816 ^(NS)
	Private Hospital	14.2	3.071			
	Home remedies	14.67	2.875			
	Spiritual healer	14	3.464			
13.a	Previous knowledge about diarrhoea					
	Yes	14.31	2.972	198	0.368 ^t	0.545 ^(NS)
	No	13.64	3.384			
13.b	If yes, specify the source of information					
	Mass media	15.5	2.074	3/196	0.632 ^F	0.59 ^(NS)
	Family/friends	14.17	2.879			
	Health personnel	14.46	3.212			

Level of significance ($p \leq 0.05$)*= significant

NS= Non Significant

The table 12 reveals that computed value of the variable (age, religion, type of family, educational status, type of employment, working hours per day, family income per month, no. of children, no. of children under 5year, sex of under 5year children, mode of defecation, previous history of diarrhoea, treatment taken from, previous knowledge and source of information) was found statistically non-significant at 0.05 level of significance. This indicates that the level of knowledge was independent on age, religion, type of family, educational status, type of employment, working hours per day, family income per month, no. of children, no. of children under 5, sex of under 5 children, mode of defecation, previous history of diarrhoea, treatment taken from, previous knowledge and source of information.

KNOWLEDGE:- the data reveals the majority of mothers (51.5%) had below average knowledge and (48%) had average knowledge whereas least (0.25%) mothers has good knowledge regarding prevention and management of diarrhoea among mothers of under 5year children in rural area of Ambala Haryana.

- The similar study was conducted on 280 mothers interviewed, less than one-fourth (24.3%) knew the correct meaning of diarrhoea, with three-

fourths (73.8%) of them not knowing the correct cause of diarrhoea. Only 44.3% mothers knew that diarrhoea can be prevented. Majority (88.7%) did not know to look for signs of dehydration. Less than half of the mothers had heard of ORT. By using X2-test, preparation of oral rehydration salts (ORS) was found to be associated with the education of the mother ($p = 0.04$) proving that knowledge is better among those mothers with formal education. No association was found between ORS preparation and age of the mother ($p = 0.229$), religion ($p = 0.342$), and gender of the child ($p = 0.061$).

- A study was conducted on prevention and management of diarrhoea. In this cross-sectional study 430 mothers who had at least one child aged below five year old were selected by cluster sampling. Most of the mothers were 25-30 years old (43.8%) slightly more than half (55.6%) had just one child. The health centre, educational programs and the personal reading were the main sources of the knowledge and its treatment (43.7%).28.8% of the mothers had a good knowledge in diarrhoea diagnosis and its treatment while the 46.5% had medium knowledge and 24.7% suffered low knowledge.

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A cross sectional study to assess the knowledge, practices and attitude of mothers regarding diarrhoea and oral rehydration therapy in rural area of Wardha district of Maharashtra, 75 mothers of under five children participated in the study. Out of which 68% of mothers know the correct definition of diarrhoea but only 5.3% of them were aware that diarrhoea leads to dehydration. Around 90.7% of mothers were aware of oral rehydration therapy and oral rehydration solution was easily available to the majority, but only 60% of mothers practiced oral rehydration therapy. The maternal knowledge towards diarrhoea and oral rehydration solution was inadequate in the population studied and there was a big gap between actual and desirable practices

Conclusion: Mothers of under five children were having very average or poor knowledge regarding prevention and management of diarrhea. And it is independent of any variables. So more and more efforts should put to improve mothers knowledge regarding prevention and management of diarrhea as it is second leading cause of maternal mortality.

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