



MANAGEMENT OF DIARRHOEA WITH HOME AVAILABLE FLUID AMONG MOTHERS OF UNDER FIVE CHILDREN IN ICDS CENTRE

Nursing

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ABSTRACT

Diarrheal disease constitute a leading cause of morbidity and mortality among children in developing countries. Over as a consequence of diarrheal disease in children of under 5 year of age group. A non-experimental research survey approach and descriptive research design was adopted. Purposive sampling of 100 mothers from ICDS Centre was done. Pre designed and validated tools were used. Structure questionnaire was used for assessment of knowledge and stated practice. Majority (45%) of the respondents had good knowledge and few also had (28%) very good knowledge. In stated practice approximately 48% of respondents was average with another 18% showing very good practices. Remaining respondents (34%) practices were good. There was positive correlation between knowledge and stated practice. Significant association was found between knowledge and demographic variables. The findings of the study are helpful for the health workers in hospital and community to teach the mothers on management of diarrhoea.

KEYWORDS

Home Available Fluid, Knowledge, Practices.

INTRODUCTION

Background of the study

Healthy children today make a healthier nation tomorrow. Children are an asset of the family, society, community where they live. The contribution of the mother in creating a healthy population is beyond explanation.¹

Diarrhea is a common but potentially severe illness in infant and children then become the cause of death. It is an acute or chronic intestinal disturbance.¹

Diarrhea diseases probably have been man's companions from the beginning of life. In the present century, diarrheas of varied etiology in the pediatric age group are responsible for 50 - 75% of morbidity and 20 - 30% death. Every year in the developing world, about 3.2 million children under five years of age die from condition related to diarrhea. Most of this death is the result of dehydration and malnutrition. In the world every six second a child dies of diarrhea. In India alone, 1.5 million children die annually of diarrhea.²

One of the major causes of morbidity and mortality of young children is diarrhoea. Globally, an estimated 1.8 billion cases of childhood diarrhoea are reported which is responsible for deaths more than three million under five children per annum. About 60-70 per cent of diarrhoea related deaths are caused by dehydration. Oral rehydration therapy has revolutionized the concept of management of diarrhoea. It is simple, inexpensive, technologically appropriate and highly effective. Government of India, in accordance with WHO, promotes ORT as one of its top priority activity for child survival due to diarrhoea. Mothers and communities are being educated about causes, symptoms and treatment of diarrhea in this program. Use of oral rehydration solution largely depends, on the, level of mother's knowledge and her attitude towards its use.³

Diarrhoea is caused by some types of germs. Stool of a patient contains these germs. These germs are carried to the body of a healthy person through food, milk, water, fly, utensils, finger nails, bottle feeding, non-use of soap for cleaning feeding container, water storage in wide-mouthed container, use of pond water for the same and indiscriminate disposal of children's stool etc. Once the germs enter the body, the host suffers from diarrhoea. Diarrhoea causes loss of water and salt from the body. Continuous diarrhea results in serious shortage of salt and especially water in the body. This is a serious condition and if not controlled early, it can lead to death of the patient.⁴

The World Health Organization recommends the use of oral rehydration salt to reduce the duration and severity of the episode. It has been the experience of health-care workers in Kolkata, India, that as many as 90-95% of all cases of cholera and acute diarrhoea can be treated with oral fluids alone. The use of oral rehydration therapy (ORT) is the first choice in diarrheal disease control efforts. The fluids given could be either ORS or recommended home-based fluids [e.g., soups, rice water, clean water, barley water, puffed-rice-soaked water, pressed-rice-soaked water, green coconut water, whey water,

buttermilk (lassi), etc.]. It was advised that all children with diarrhoea should be given more fluids to drink to compensate the loss of fluids and that feeding should not be stopped during diarrhea.⁵

Need of the study

A mother in the family occupies pivotal role. If she is educated and having significant health awareness, she will take the responsibility of increasing the total family awareness which facilitates high standard of living. Healthy practices adopted by the mother can raise the healthful living condition thereby lessens the morbidity and mortality of under five-year children. In rural community, due to poor socio-economic condition, inadequate sanitation, poor hygiene practice, contaminated food & malnutrition and lack of safe drinking water all of which affect the spread a severity of diarrhoea than urban community.

By the personal experience and observation, the Investigator felt that there is correlation between mother's knowledge and child's health. Hence the Investigator felt the need to assess the knowledge and stated practice of mothers of under five children regarding management of Diarrhoea.

Objectives of the study:

- 1) To assess the knowledge of mothers of under five children about home available fluid regarding management of diarrhoea.
- 2) To determine stated practice of mother of under five children about home available fluid regarding management of diarrhoea.
- 3) To find out correlation between knowledge and stated practice score.
- 4) To find out association of the knowledge of mothers of under five children with selected variables.

Material and Method

Purposive sampling technique was used in this study. Interview schedule is one of the most suitable method to enquire and find out the knowledge and stated practice of mothers. Review of literature was done. The blue print of the tool was prepared. It was based on structured knowledge questionnaire related to causes, management and prevention of diarrhoea and preparation of home available fluid. Plan for scoring was done. Maximum possible score is 12 for knowledge and 10 for stated practice. Minimum possible score was 0. Validity was established by expert opinion and modification was made as per suggestion. Language validity was established by a qualified person. The demographic data consisted of 11 items, according to the expert opinion the final tool consisted of eight items. Testing of the tool was done on 10 mothers by interview schedule. The pre-testing indicated that the study was feasible and item were clear. The time taken for each interview was 15 - 20 minutes. Some improvement was made in some question and then the tool was finalized for data collection. The reliability of the interview schedule will be established by Split half method. The reliability of the test was 0.89 for knowledge & 0.92 for stated practice. So, the tool was found to be highly reliable for the data collection. The data was collected by structured interview schedule and analysis of the data was done by frequency and percentage distribution and computation of correlation.

Chi-square was done for establishing association among selected variables. Formal permission taken from the institutional ethical committee, DHS, DME, Joint DHS (Nursing), DPHNO, CMOH, BMOH. Data was collected from 100 mothers having children of age group under five of rural community, ICDS Centre. Institutional Ethics Committee approved the study and informed consent was obtained from every participant prior to interview and observation. Data were collected from 10-12 respondents daily. Informed consent taken from the mother and assured regarding confidentiality. The obtained data was organized in statistical way so that summarized result was visualized scientifically.

Results

Organization of data analysis and interpretation of data:

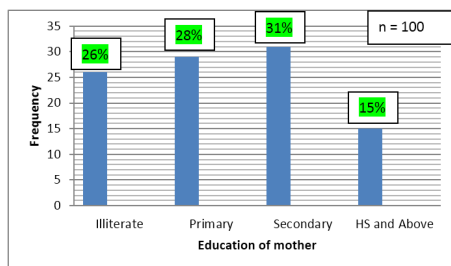


Figure-1: Percentage distribution of sample according to mother's education.

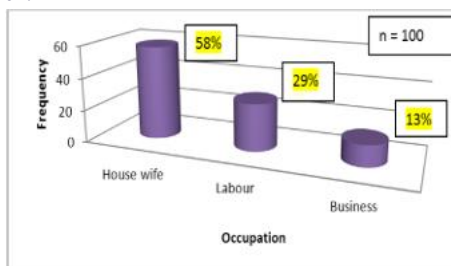


Figure-2: Percentage distribution of sample according to mother's occupation

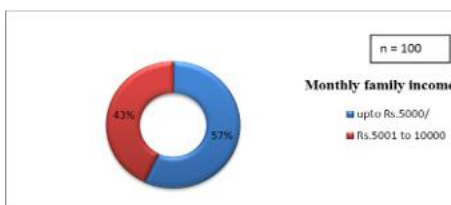


Figure-3: Percentage distribution of sample according to mother's monthly family income.

Table 1: Frequency and percentage distribution of sample related to number of children, type of disposal of excreta and source of drinking water. (n= 100)

Sample Characteristics	Frequency	Percentages (%)
Number of children:		
1) One	34	34
2) Two	37	37
3) Three	17	17
4) More than three	12	12
Type of disposal of excreta:		
(I) Open Field Defecation	48	48
(II) Community Latrine	19	19
(III) Household Latrine	33	33
Source of Drinking Water:		
(I) Public Supply System	66	66
(II) Tube Well	34	34

Table2: Knowledge score among mothers of under five children about home available fluid regarding management of diarrhoea. (n=100)

Level of Knowledge Score	Frequency	Percentage
Very Good(9 – 10)	28	28%
Good (7 – 8)	45	45%
Average (5 – 6)	27	27%

Table 3: Mean, Median and SD of knowledge scores of mothers. (n= 100)

Variable	Mean	Median	SD
Knowledge Score	7.52	7.47	1.45

Table4: Stated practice score among mothers of under five children about home available fluid regarding management of diarrhoea. (n= 100)

Level of Stated Practice Score	Frequency	Percentage
Very Good(8 - 9)	18	18%
Good(6 – 7)	34	34%
Average(4 – 5)	48	48%

Table 5: Mean, Median and SD of stated practice scores of mothers. (n= 100)

Variable	Mean	Median	SD
Stated Practice Score	6.15	7.38	1.40

Table 6: Correlation between knowledge and stated practice score (n= 100)

Mean Knowledge Score	Mean stated Practice Score	Correlation between knowledge and stated practice score ('r')	't' Value
7.52	6.15	0.83	14.73

Table No - 7: Chi-square value showing association between Mother age, education and Source of Drinking Water with knowledge level of mothers about home available fluid. (n= 100)

Selected demographic variables	< Median	≥ Median	df	Chi square
Age of Mother				
<20 Years	6	10	3	8.155*
20 – 25 Years	33	19		
26 – 30 Years	6	14		
> 30 Years	7	5		
Mother's Education				
Illiterate	18	8	3	8.29*
Primary	10	19		
Secondary	18	12		
H.S. and Above	6	9		
Source of Drinking Water				
Public Supply System	39	27	1	3.91*
Tube Well	13	21		

*Statistically significant with $p < 0.05$ at df (3)

*Statistically significant with $p < 0.05$ at df (1)

Figure-1, 2 & 3 depicts that 31% respondent has secondary education, maximum number of the mothers (58%) are housewife and 57% of their monthly family income is up to Rs.5000/-. Table-1, reflects that 37% respondents have two children, majority of the respondents (48%) practice are open field defecation and maximum number of respondents (66%) use to drink water from public supply system.

Table-2 shows maximum of the respondents (45%) have good knowledge score, 28% have very good knowledge score and 27% have average knowledge score regarding management of diarrhoea with home available fluid among mothers of under five children.

Table-3 represents mean knowledge score of mothers regarding management of diarrhoea with home available fluid is 7.52 & median is 7.47. The standard deviation (SD) is 1.45 which indicated that variation in their knowledge.

Maximum respondent's (48%) have average stated practice score, 34% have good stated practice score and 18% have very good stated practice score regarding management of diarrhoea with home available fluid among mothers of under five children, which are showing in Table-4.

Table-5 shows mean stated practice score of mothers regarding management of diarrhoea with home available fluid is 6.15 & median is 7.38. The standard deviation (SD) is 1.40 which indicated that variation in their stated practice.

Table-6 reflects that mean knowledge score of mothers regarding management of diarrhoea with home available fluid is 7.52 and mean

stated practice score of mothers regarding management of diarrhoea with home available fluid is 6.15. Here calculated 't' value is greater than table 't' value. So positive correlation found between knowledge and stated practice score and it is statistically significant.

Table-7 depicts that the calculated 'Chi square Value' is more than the tabulated 'Chi square Value', so there is significant association between knowledge with age of mother, education of mother and source of drinking water at 0.05 level of significance. This study didn't get association between knowledge about home available fluid regarding management of diarrhoea with Occupation, Monthly family income, Religion, Number of under five children, Type of disposal of excreta at 0.05 level of significance.

DISCUSSION

Major findings of the research study have been discussed with result obtained by the investigator in their studies. The present study reveals that (45%) have good knowledge score, 28% have very good knowledge score and 27% have average knowledge score regarding management of diarrhoea with home available fluid among mothers of under five children.

Maximum respondent's (48%) have average stated practice score, 34% have good stated practice score and 18% have very good stated practice score regarding management of diarrhoea with home available fluid among mothers of under five children.

According to the Integrated Management of Neonatal and Childhood Illnesses guidelines, children with some or no dehydration should be managed at home for diarrhoea. The WHO plan ⁶ also encourages mothers and caregivers to treat diarrhoea at home by giving ORS and ORT.

In a Nigerian study it was found that during diarrhoea in infancy food withdrawal was done in 71% cases, reduction in breastfeeding frequency in 44% cases. In fact more than two third respondents told their cultural reasons for withholding breastfeeding.⁷

Concerning the home available fluids, the majority of the respondents replied that they administered sugar salt solution, followed by daal ka pani (cooked pulses water) and Khichdi (a mix of rice and lentils). Similar observations were made by Rehanet al.⁸

None of the mothers knew about zinc by word or substance in the present study. It was noteworthy that zinc was not supplied by the State Health Department prior to or until the time of study. Though, the ORS use was very low, still 94% mothers started some form of treatment and more than half of them started from the first day itself. In a North Indian study, it was found that ORS uses declined over time due to the misbelieve regarding ORS - a medicine to stop diarrhea, which didn't.⁹ The present study also revealed that despite knowledge about ORS, very few mothers knew the correct way to give it. It is important that the health-care providers prescribe ORS in all cases of diarrhoea. As envisioned by the IMNCI (Integrated management of neonatal and childhood illness), adequate education about ORS as well as home available fluids and zinc can improve the home based management of diarrhea and many danger could be reduced.

These results are more or less comparable with the study conducted by Gilany AH et al (2005)¹⁰, in Egypt (a developing country) which showed that in the past (2 wks.) of diarrheal episodes, one quarter i.e., (25%) had received ORS and (75%) had received antibiotics.

Sood AK et al studied 108 rural mothers of children suffering from diarrhoea. 88.33% of mothers believed that ORS alone cannot treat diarrhea.¹¹

Zodpey SP et al (1998) conducted a case control study on risk factors for dehydration in Nagpur. Multivariate analysis identified twelve significant risk factors that included not giving ORS during diarrhoea also.¹²

Deb BC et al; (1985) conducted a study in West Bengal rural areas interviewing 159 mothers regarding ORI. Lack of information (15.4%), lack of faith (23.1%) were the reasons for non-utilization of ORS.¹³

Implications:

Though diarrhoea is a common condition, nurse must have adequate knowledge to provide basic management of diarrhoea among under five children. As study shows that the mothers have not satisfactory knowledge about management and prevention of diarrhoea, so nurse can guide and supervise the mothers for provide care to their children.

Health education should be inclusive in basic care protocol for the patients and caregiver of the family. Nursing personnel are working in various health care setting should have the ability to provide health education for different group of patients and their family members.

Nursing research is very much required in preparation of education materials and to see their effects on the patient and their family. The findings of the study can be used to develop teaching materials.

Limitation:

Only under five children from rural ICDS Centre were included in this study.

Recommendations:

On the basis of the findings following recommendations were offered for future research.

- The study can be conducted in large sample for generalization of the findings.
- A comparative study can be done among mothers of urban & rural community.
- A study can be replicated for the nursing students for home management of diarrhoea among under five children.

CONCLUSION

Over all, the mother of under five children had good knowledge score but average stated practice score regarding management of diarrhoea with home available fluid. If health education could be correctly provided to the specific target group (mothers, guardians and healthcare providers) regarding all the rules of home management, the situation can be improved.

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