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Do the mothers in rural Aligarh know about home based management of acute diarrhoea?

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Abstract
Diarrhoea is a major cause of illness and death among under five age group children in India. The main immediate cause of death from acute diarrhoea is dehydration which is preventable through Oral Rehydration Therapy (ORT). The present study was undertaken to know the knowledge, attitude, practice of mothers regarding home-based management of diarrhoea in under five children in rural area of Aligarh in August and September 2010. The overall prevalence of diarrhoea in under five children was 32%. Only 26% knew about the correct method of preparation of Oral Rehydration Salt solution. Only 36% of the respondents knew about home available fluids, out of which salt sugar solution was the choice in majority of cases. The study highlights that the knowledge and practice of mothers is not adequate and it emphasizes the need for behavior change communication in specific target group i.e. mothers and health care providers which may lead to substantial decrease in morbidity and mortality due to diarrhoea.

Keywords: Diarrhoea; Oral Rehydration Salt; Under-five mortality; Home based management.

Introduction

Childhood diarrhoea is responsible for two million deaths each year amounting to 18% of all child deaths (Murray et al., 2007). An estimated 0.6-0.7 million children under five in India die from diarrhoea every year. With an annual diarrhoea incidence of 2-4 episodes per child, a substantative part of childhood in the developing countries is spent combating diarrhoea (Enzley and Barros, 1997). In recognition of this significant burden of illness, the World Health Organization (WHO) initiated a special programme for Control of Diarrhoeal Disease (CDD) in 1980. In an effort to improve provision of fluids in early diarrhoea to prevent dehydration, diarrhoeal disease programme promoted the use of additional fluids and home based solutions such as rice water and sugar salt solution collectively referred to as recommended home fluids (Victora et al., 2000). It was estimated that about two-third of all deaths by diarrhoea in children were attributable to acute watery diarrhoea and thus could be prevented by ORT (Nalin et al., 1968). Moreover, it was advised that all children with diarrhoea should be given more to drink than usual, to compensate for losses of fluid through loose stools and that feeding should not be stopped during diarroea (WHO, 1989). Thus, a study was conducted in the rural area of Jawan Block in Aligarh district to know knowledge, attitude and practice of mothers regarding diarrhoea in children under five years of age.

Materials and Methods

The study was undertaken in Jawan village which is the headquarter of the Jawan Block of Aligarh District in August & September 2010. Jawan village consists of 924 households consisting of 5588 individuals. The number of children under the age of five years is 762 with a mean for 1.2 under-five children per household. The health facilities available nearby were the Community Health Centre, Rural Health Training Centre, Department of Community Medicine, J.N. Medical College, registered and the unqualified practioners. House to house visit was done. The mothers of all the children up until the age of 60 months, suffering from diarrhoea with at least one episode in the last 2 weeks prior to the day of interview were included in the study. Information was gathered on a predesigned and pretested questionnaire. Mothers of the child were interviewed regarding danger Signs, home available fluids, preparation of ORS, feeding pattern, health-seeking behaviour during diarrhoeal illness. A case of diarrhoea was a child up to the age of 60 months having passed 3 or more loose stools in a day or passed blood or mucous even once over a period of 2 weeks preceding the date of interview. Informed consent was taken from the mothers. Only those mothers who gave consent were included in the study. *Ethical Consideration*: Wherever in any household, it was known that there is deficiency in the knowledge, practice and behaviour, it was overcome by behavioural change in communication.

Results

There were 244 children under the age of five years suffering from diarrhoea within two weeks prior to the date of interview. Thus, the overall prevalence of diarrhoea was 32 % (Table1). Diarrhoea among the infants was 37.8%. No gender difference was noted in the two groups.

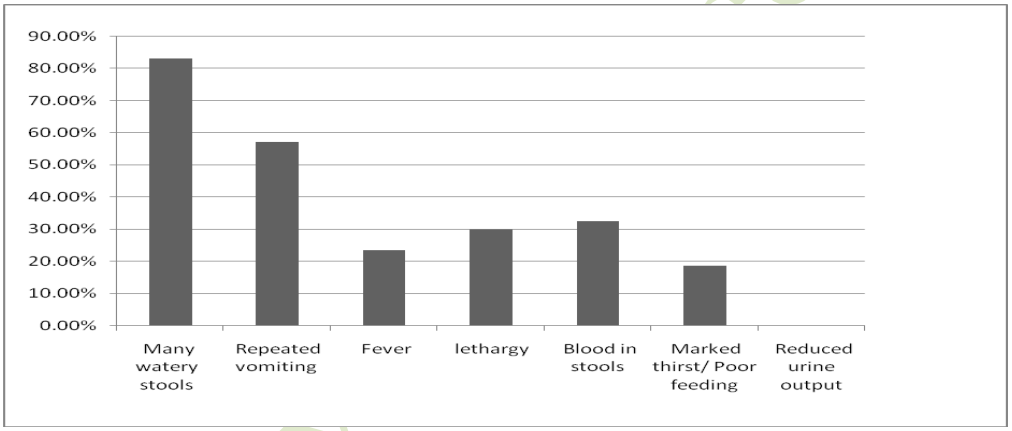
Socio-demographic status of the mothers

More than two-third of the mothers were illiterate, mostly belonging to low socioeconomic lying below the Rs 1500 (class V) of the Modified Prasad Classification. Water was stored in an open container and open field defecation was very common.

Table 1: Prevalence of diarrhoea cases in under-five children.

Age Group	No. of Diarrhoea Cases	Prevalence
0-365 days (n=225)	85	37.8%
365 days – 60 months (n=537)	159	29.6%
Total (762)	244	32%

Graph 1: Knowledge of the mothers regarding danger signs of diarrhoea.



When enquired about the danger signs of diarrhoea, 78% of the mothers were aware of them. Amongst the responses, watery stools (83%) were the most prominent followed by repeated vomiting (56.9%) and blood in stools (32.3%). It was noteworthy that none of the mothers thought reduced urine output as a sign that should alarm them (Graph1).

Table 2: Knowledge of mothers regarding Oral Rehydration Salt solution and home-available fluids.

Do you know about ORS?				**(n=250)**
Yes				176 (72%)
How to prepare ORS solution?				**(n=176)**
Correct Method				53(30.2%)
Incorrect method				123(69.8%)
Knowledge about Home available fluids?				**(n=244)**
Present				88(36.1%)
Absent				156(63.9%)
What can be given?				**(n=88)**
Sugar Salt Solution	Daal ka paani	Dalia	Khichdi	Rice water
43 (48.8%)	14 (15.9%)	6(6.8%)	17(19.3%)	8 (9.1%)

Knowledge about Oral Rehydration Solution was in majority (72%) of the mothers but only 30% of the respondents (mothers) were able to explain the correct method of its preparation. Only 36.1% of the mothers were familiar with the home available fluids. When asked in detail as to what can be given, majority (48.8%) of them responded as sugar salt solution to be the first choice and subsequently Khichdi and Daal ka paani.

Table 3: Feeding during diarrhoea.

Exclusively fed babies (n=23)	
Continued	14 (60.9%)
Interrupted	9(39.1%)
Feeding during illness (n=221)	
Continued	112(50.7%)
Withheld/ decreased	109(49.3%)

Out of 23 children on exclusively breast-feeding, approximately 60% were continued with the breast-feeding as usual. Among the other group of 221 children, continued feeding was reported in 50.7% of the children during an episode of acute diarrhoea (Table 3).

Table 4: Health-seeking behavior during diarrhoeal illness.

(n=244)

Facility availed	**N (%)**
Government Health Worker	44(18%)
General Practioner	35(14.3)
Child Specialist	14(5.7%)
Chemist (over the counter)	30(12.3%)
Vaid/Hakeem	13(5.3%)
Unqualified practioner (Quacks)	68(27.9%)
Use of left over drugs prescribed earlier	28(11.5%)
No Treatment	12(4.9%)

Majority (27.9%) of the mothers consulted the unqualified practioners (quacks) when their child was having an episode of diarrhoea. 18% of the mothers availed the facilities of the government in the form of health workers of the doctors. An important finding of the study was that in 12.3% of cases, over the counter treatment was taken as an option. Moreover, the left over drugs were also used in 11.5% of cases. Only 5.7% of the children were taken to child specialist whereas 4.9% of the children were left to their fate and were not given any treatment (Table 4).

Discussion

It is important to critically review approaches and activities designed to reach caregivers of children at risk of dying from diarrhoeal diseases to make such approaches more effective. Thus, there is a need for introspection of the health care with respect to acute diarrhoea management to know as to where we stand today. The present study was planned and conducted in the light of the above mentioned facts to assess the knowledge, attitude and practice of mothers in acute diarrhoeal illness. The prevalence of diarrhoea in the present study was 32%. The finding of the other author from Uttar Pradesh was similar to the present one reporting a prevalence of 33% (Mishra et al., 1990). Moreover, the prevalence was more in infancy than in the 1-5 years age group. This finding is consistent with other study conducted in developing countries that have demonstrated a much higher incidence of diarrhoea in the 6 to 12 months age group (Hall, 2000). This

could be linked with several factors including poor feeding practices and personal hygiene of the caregiver, contaminated water, and bad sanitary conditions. In addition, this is also the period when the antibody transmitted through breast milk starts to wane and the child starts developing his/her own immunity. The knowledge of more than two danger symptoms of diarrhoea was present in 36% of mothers which is comparable to NFHS figures that reported 37% for India and 33% for Delhi (NFHS, 2000). One of the most important symptoms i.e. the reduction in urine output was not thought of as dangerous by the mothers. Similar observation was also made by other researcher (Rehan et al., 2003).

Feeding was interrupted in almost half of the cases, and breast milk only one-quarter of the cases. The other reasons cited by the mothers as the culprit for diarrhoea was the energy dense foods which the mothers take during lactation is secreted in the breast milk and it should be withdrawn. Practices such as reduction in breastfeeding and restriction of foods and fluids were observed in caregivers in study by other author (Othero et al., 2008). The mothers felt that it was less important to continue feeding as they had been given some treatment for the diarrhoeal illness at the health facility. The use of such remedies may compete with ORT and feeding. The role of the mother in laws was also seen. Thus, involving mother in laws along with the mothers may be rewarding while imparting health education regarding the home based management of diarrhoea. Although about 30% Acute Diarrhoeal Disease cases were given ORS, most of the mothers were unable to demonstrate the correct method of preparation. Inaccurately prepared solutions can exacerbate the state of dehydration, thereby doing more harm than good. Low coverage of ORT in India has been pointed out as a major problem (Bhatttacharya, 2003). Bentley reported in a study from rural north India that a drastic decline in the use of ORS occurred when mothers who thought ORT was a medicine that would cure diarrhoea did not stop the episode (Bentley, 1988). Knowledge about home-available fluids was present in only 36.5% of the respondents. Among the home available fluids, majority of the respondents gave sugar salt solution followed by Khichri and Daal ka pani. Similar observations were made by the other author (Rehan et al., 2003).

As far as health seeking behavior is concerned, 95% of the mothers consulted some or the other facility for treatment. Although majority of the children were taken to unqualified practitioners followed by consultation with government health workers at Community Health Centre and Rural Health Training Centre. It is worth mentioning here that most of the mothers preferred the private practitioners as an option. The government should develop a programme to train the physicians in standard case management of acute diarrhoea. Surveys should be conducted to identify the factors responsible for mothers or care givers not opting government health facility as a priority option. Quite appreciable percentage of mothers sought help from the nearby chemists. In a study by Sepulveda et al., drug stores were found to be most frequent home options amongst the low socioeconomic households, a group that has frequent diarrhoeal morbidity and mortality (Supulveda, 1988).

Conclusion

The present study concludes that there is a wide gap in the knowledge, attitude and practices of the mothers regarding home based management of diarrhoea. This poses a challenge for the health care work force as the results in the field of acute diarrhoeal disease management practices after thirty years of inception of the idea and implementation as a priority is disappointing. Thus, if the options about home based management and the Oral Rehydration Solution in cases of acute diarrhoea are clearly percolated in the community, not only the visits to the health facility could be minimized as a short term effect but the reduction in morbidity and mortality of under fives due to acute diarrhoeal diseases as a long term goal and these can be realized by changes in the behavior of the individuals through communication.

References

Bentley ME, 1988. The household management of childhood diarrhoea in rural north India. Social Science and Medicine, 27(1): 75-85.

Bhattacharya SK, 2003. Progress in the prevention and control of diarrhoeal diseases since independence. National Medical Journal of India, 16: 15-9.

Enzley S, Barros F, 1997. A global review of diarrhoeal disease control. UNICEF staff working papers: evaluation, policy and planning series 1997; EVL-97-002: UNICEF, New York, USA.

Hall J, 2002. Control of diarrhoeal disease, MIPH readings. University of Sydney, Australia.

Mishra CP, Kumar S, Tiwari IC, 1990. A study on some diarrhoea related practices in urban Mirzapur. Indian Journal of Public Health, 34(1): 6-10.

Murray CJ, Laako T, Shibuya K, Hill K, Lopez AD, 2007. Can we achieve Millenium Development Goal 4? New analysis of country trends and forecasts of under-five mortality to 2015. Lancet, 370: 1040-54.

Nalin DR, Cash RA, Islam R, Molla M, Phillips RA, 1968. Oral maintenance therapy for cholera in adults. Lancet, 2: 370-3.

National Family Health Survey (1998-99), 2000. International Institute of Population Sciences. 216.

Othero DM, Orago ASS, Groenewegen T, Kaseje DO, Otengah PA, 2008. Home based management of diarrhoea among under fives in a rural community in Kenya: Household perceptions and practices. East African Journal of Public Health, 5(3).

Rehan HS, Gautam K, Gurung K, 2003. Mothers need to know more regarding management of childhood acute diarrhoea. Indian Journal of Preventive and Social Medicine, 34(1, 2): 40-45.

Supulveda AJ, Willet W, Munoz A, 1988. Malnutrition and diarrhoea. A longitudinal study among urban children. American Journal of Epidemiology, 127(2): 365.

Victora CG, Bryce J, Fontaine O, Monasch R, 2000. Reducing deaths from diarrhoea through oral rehydration therapy. Bulletin of World Health Organization, 78: 1246-55.

World Health Organization, 1989. The treatment and prevention of acute diarrhoea. Practical Guidelines. Second Edition: Geneva, WHO.