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KNOWLEDGE , ATTITUDE AND PRACTICES OF RURAL AND URBAN MOTHERS IN MANAGEMENT OF DIARRHEA IN UNDER 5 CHILDREN

Medical Education

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ABSTRACT

Diarrhea continues to be a major cause of under 5 morbidity and mortality, early identification of danger signs and prompt treatment with oral rehydration therapy can prevent this . In our Observational study 120 rural and 80 mother's of urban population were included because of differences in the level of knowledge, family factors and socioeconomic status there existed difference between approach towards management of Diarrhea in rural and urban mothers. Regarding role of Handwashing in Diarrhea prevention 61% of urban mother's had good knowledge compared to only 30% of rural mothers.73% of urban and 42% of rural mothers knew importance of ORS and 91 % of urban and only 68% of rural mothers gave ORS to there children during diarrheal episode .Hence it is important to identify the gaps in KAP between rural and urban mothers , to plan appropriate health education and prevent under 5 mortality due to Diarrhea.

KEYWORDS

Diarrhea ,KAP, Oral Rehydration solution , Danger signs of diarrhea.

INTRODUCTION

Mother's Insights: Shaping Knowledge, Attitude, and Practices to Combat Diarrhea. Diarrhea is characterized by the frequent passage of abnormally loose or watery stools, typically occurring three or more times within a 24-hour period . Children under 5 years old are more Susceptible to diarrhea, which remains a major public health concern in developing and low-income countries and it is the second leading cause of illness and death in children under the age of five worldwide, surpassed only by acute respiratory infections.[1] On average, children under 3 years old in India typically suffer from approximately 3 to 5 episodes of diarrhea annually.[2] An estimated 760,000 deaths globally [2] and 212,000 deaths specifically in India were attributed to diarrhea.[3]

Diarrhea can be effectively managed through both preventive and therapeutic measures. Primary prevention involves improving access to clean water , good cooking practices ,hand washing , sanitary disposal of excreta, exclusive Breastfeeding and immunization [4] while secondary prevention focuses on early detection and treatment of dehydration with Oral Rehydration Solution (ORS) or homemade fluids, continuous feeding, continued breastfeeding and zinc therapy.[5]

Prompt and effective management of cases within households and healthcare settings remains crucial for reducing mortality caused by childhood diarrhea.[6] However ,The National Family Health Survey (NFHS III) reveals a significant gap in diarrhea treatment, with less than half (43%) of affected children receiving oral rehydration therapy (ORT) or increased fluids, highlighting a need for improved healthcare practices.[7]

Mothers play a pivotal role in the prevention and management of childhood diarrhea through their knowledge, attitudes, and daily practices. Hence , understanding the KAP of mothers regarding diarrhea is crucial for designing effective public health interventions. This study aims to explore and compare the KAP of mothers in both rural and urban settings, shedding light on disparities and identifying opportunities for targeted interventions to improve child health outcomes.

Objectives:

To assess the knowledge, attitude and practices of rural and urban mothers regarding prevention and management of childhood diarrhoea.

Methodology:

A Observational research study was carried out at a teritiary hospital , Navodaya Medical College Hospital and Research Centre over a period of 1 year from February 2023 to January 2024. The study included 200 mothers of children less than 5 years old who visited the hospital on outpatient or inpatient basis for their child's care. After taking informed consent , The mothers were asked to complete a questionnaire that collected information on their demographic background, understanding, beliefs, and behaviors related to diarrhea prevention and management. The questionnaire was carefully crafted using existing literature .

The data gathered was compiled in Ms excel and analysed using frequency and percentage .

RESULTS:

In our study total of 200 mother's attending our hospital for treatment of children with Diarrhea were interviewed out of which 120 mother's belonged to rural population and remaining 80 mother's to urban areas .

Demographic Details-

In the present study majority 94 (78%) of rural mothers and 51(64%) belonged to age group of 18-25 years .

34 (28%) of the rural mothers were illiterates and 13 (16%) of the urban mothers were illiterates. Majority of the mother's in both rural and urban population studied till 10 th std that is 62 (52%) and 27 (34%) respectively.

Most of the 60 (50%) of rural mothers and 34 (42 %) of urban mother's belonged to class IV socioeconomic class according to Modified Kuppuswamy classification.

88(74%) of mothers of rural mother's and 55 (69%) of urban mother's had more than one child.

Table 1- Baseline Demographic Characteristics of rural and urban mothers of under 5 children with Diarrhea.

Demographic Details	Rural (n=120) Frequency (%)	Urban (n=80) Frequency (%)
Age in years		
18-25 years	94 (78%)	51 (64%)
25-30 years	24 (20%)	23 (28%)
>30 years	2 (2%)	6 (8%)
Education of Mothers		
Illiterates	34 (28%)	13 (16%)
Up to 10 th std	62 (52%)	27 (34%)
Intermediate	14 (12%)	21 (26%)
Graduates	10 (8%)	19 (24%)
Socioeconomic status		
Class I	2 (2%)	0
Class II	18 (15%)	6 (8 %)
Class III	31 (26%)	33 (41%)
Class IV	60 (50%)	34 (42%)
Class V	9 (7%)	7 (9 %)
Number of children		
Single child	32 (26%)	25 (31%)
More than 1 child .	88 (74%)	55 (69%)

Knowledge about Diarrhea among Mother's

In the current research study 96 (80%) of rural mothers and 72 (90%) of

urban mother knew what Diarrhea means , 29 (24%) of rural mother's and 40 (50%) of urban mother's had knowledge regarding mode of spread of Diarrhea , 25 (21%) and 32(40%) of rural and urban Mother's respectively were aware of the signs of Dehydration, most of the 81 (73 %) of rural mothers and 65 (81%) of urban mother's knew about ORS , However only 31 (26%) of mother's of rural population and 49 (32%) of mother's of urban region knew the correct method of preparation of ORS.

Table 2- Awareness of mother's about Diarrhea

Knowledge of mothers about diarrhea	Rural mothers good responses	Urban mother's good responses
What is diarrhea	96 (80%)	72 (90%)
Modes of spread	29 (24%)	40 (50%)
Signs of dehydration	25 (21%)	32 (40%)
Knowledge regarding ORS	81 (73%)	65 (81%)
Preparation of ORS	31 (26 %)	32 (40%)

Attitude of Mothers towards Diarrhea

Mothers' attitudes towards diarrhea were assessed as either minor or serious issue based on their responses to three questions that evaluated their approach to managing diarrhea.

36 (30%) of rural and 49 (61%) of urban mother's knew about the importance of handwashing to prevent causation and spread of illness , Among rural mother's 59 (42%) and 58 (73%) of urban mother's believed importance of giving ORS in treatment and prevention of Dehydration, Only 19 (16%) of rural mother's and 18 (24%) of urban mother's were confident in managing Diarrhea at home .

Table 3 – Attitude of Mother's of Rural and Urban areas towards Diarrhea.

Attitude of mother's towards diarrhea illness	Rural mothers good responses	Urban mother's good responses
Role of Hand washing in preventing Diarrhea	36 (30%)	49 (61%)
Importance of ORS in treatment and prevention of Dehydration	59 (42%)	58 (73%)
Confidence of Managing Diarrhea at home	19 (16%)	18 (24%)

Practices regarding Diarrhea management and prevention.

Practices related to diarrheal illness were evaluated as good or poor by asking 5 questions. 98 (82%) of rural and 66 (82%) of urban mother's had the practice of giving there children boiled or filtered water for drinking , 36 (30%) and 30 (38%) mother's of rural and urban areas respectively followed bottle feeding practices, Most of the rural mother's 82 (68%) and 73 (91%) of urban mother's used ORS during episode of Diarrhea, 58 (48%) of rural and 42 (52%) of urban region mother's were aware of giving extra fluids during diarrhea , 55 (46%) of rural and 58 (74%) of urban mother's continued breastfeeding and routine foods.

Table 4-Comparison of correct practices regarding diarrhea management and prevention between rural and urban mothers.

Practices of mothers regarding Diarrhea management and prevention	Rural Mother's correct responses	Urban Mother's correct responses
Use of boiled or filtered water for drinking	98 (82%)	66 (82%)
Bottle feeding	36 (30%)	30 (38%)
Use of ORS	82 (68%)	73 (91%)
Giving extra fluids during diarrheal episode	58 (48%)	42 (52%)
Continue Breastfeeding and routine foods	55 (46%)	58 (74%)

DISCUSSION:

Even though mortality due to childhood diarrhea has been reduced by introduction of ORS and Rota virus vaccination , the overall incidence of number of episodes of diarrhea per child per year has not declined much .

In the present study Most of the mother's in both rural (78 %) and urban (64%) regions were in the age group of 18-25 years. Though majority of the mother's (rural -72% ,urban-84%) were literates, factors like low socioeconomic status – (upper lower and lower class -57% of rural and 51% of urban mother's) and 74% of mothers of rural area and 69% of urban region had more than one child in the family which would have hindered child care. Demographic characteristics were similar to study by Naseem A et al .[8]

In our study among Mother's of rural population majority 80% knew about Diarrhea, 73% about ORS which was similar to study by Prasanna V et al 73% [9] but only 24% were aware of modes of spread in contrary it was 59% in study by V Prasanna et al, [9] 21% about signs of Dehydration and 26% about preparation of ORS at home.

In urban region 90% had knowledge about description of Diarrhea and 81% had knowledge regarding ORS similar to study by Rokkappnanavar Kk et al [10] where it was 93% and 86% respectively.50% knew about modes of spread whereas it was higher in study by Gollar LH et al 72% [11] and 40% were able to identify signs of Dehydration and method of preparation of Home made ORS which was 30% in study by Shah MS et al. [12]

Mothers require enhanced education and training to recognize the red flags of diarrhea and understand the indications for seeking hospital care, highlighting the need for targeted health interventions to address these knowledge deficiencies.

In our study attitude of rural mothers regarding Diarrhea only 30% practiced hand washing before cooking which was in contrary to study by V Prasanna et al [9] where it was 88% and only 42% knew the importance of ORS in Diarrhea management and only 16% were confident of managing at home .

In mother's of urban region 61% knew about importance of hand washing which was 37% in study by Acharya NC et al [13] and 73% of mothers knew about importance of ORS in prevention and management of Diarrhea .

In both rural and urban mothers 82% mother's gave there children boiled or filtered water , this favorable outcome can also be ascribed to higher educational levels among mothers .

Majority of mothers 91% of mothers in urban areas gave there children ORS whereas only 68% of rural mothers practiced the use of ORS in Diarrhea whereas it was 75% in study by Gollar LH et al. [11]

30 % and 38% of rural and urban mothers respectively practiced bottle feeding whereas it was 42% in study by Gollar LH et al. [11] Bottle feeding increases the risk of diarrhea because of lack of proper cleaning .

Only half of the population 48% of rural and 52% of urban mother's knew the concept of giving extra fluids during episode of Diarrhea the importance of which has to be highlighted.

In our study 46% of rural and 74% of urban mother's continued breastfeeding and routine foods during illness whereas it was 65% in rural population in study by Kaur S et al. [14] False belief about breastfeeding and routine foods increasing diarrhea has led to this low outcome in our study. For a breastfed child with diarrhea, breast milk is the most effective fluid replacement.

In our study we found variations in rural and urban mothers KAP in childhood diarrhea management owing to there literacy levels ,exposure to health services and cultural beliefs.

CONCLUSION-

This research reveals a concerning gap in KAP between rural and urban mothers, emphasizing the need for context-specific strategies to enhance diarrhea management. By recognizing these differences and addressing the unique challenges faced by rural mothers, we can develop effective solutions to reduce diarrheal morbidity and mortality, ultimately promoting health equity for all.

Empowering mothers through health education is crucial in preventing and managing diarrheal diseases in children under 5 years of age.

REFERENCES:.

1) World Health Organization. The Treatment of Diarrhea: A Manual for Physicians and Other Senior Health Workers. 4th rev.Geneva: World Health Organization; 2005. P. 3.
2) WHO Media Centre. Diarrhoeal Disease. Fact Sheet N0 330; April, 2013. Available from: http://www.who.int/medicentre/factsheets/ fs330/en/.
3) Liu L, Johnson HL, Cousens S, Perin J, Scott S, Lawn JE. Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since

2000. Lancet 2012;379:2151-61
4) Shah D, Choudhury P, Gupta P, Mathew JL, Gera T, Gogia S. Promoting appropriate management of diarrhoea: a systematic review of literature for advocacy and action. UNICEF-PHFI series on newborn and child health, India. Indian Pediatrics. 2012;49:627-49.
5) Munos MK, Walker CL, Black RE. The effect of oral rehydration solution and recommended home fluids on diarrhoea mortality. International Journal of Epidemiology. 2010;39:i75-87.
6) Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS. How many child deaths can we prevent this year? Lancet. 2003;362:65-71.
7) International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3): 2005-06: India: Volume I. Mumbai: IIPS. Chapter 9, Child Health. 2007:23952.
8) Naseem A, Swetha R. Knowledge attitude and practices of childhood diarrhea and ORS administration in diarrhea amongst mothers of children below age 5 years: A hospital based cross-sectional survey. Int J Pediatr Res.2016;3(6):416420.doi:10.17511/ijpr.2016.i06.08.
9) V Prasanna Raniet al, Knowledge and Attitude of Mothers about Diarrhea, ORS and Feeding Practices in Under-Five Children in a Rural Area of Ranga Reddy, Telangana JMSCR .October 2016; 4 :13201- 13209
10) Rokkappanavar KK, Nigudgi SR, Ghooli S. A study on knowledge and practice of mothers of under-five children regarding management of diarrhoea in urban field practice area of MRMC, Kalaburagi, Karnataka, India . Int J Community Med Public Health 2016;3:705-10.
11) Gollar LH, Avabratha KS. Knowledge, attitude, and practice of mothers of under-five children regarding diarrheal illness: A study from coastal Karnataka. Muller J Med Sci Res 2018;9:66-70
12) Shah MS, Ahmad A, Khalique N, Khan IM, Ansari MA, Khan Z. Do the mothers in rural Aligarh know about home based management of acute diarrhoea? Biology and Medicine, 2011, 3 (2) Special Issue: 7680.
13) Acharya NC, Dash DK, Mohanty MD, Agrawal P, Dey P. Knowledge, Attitude and Practice of Using ORS and Household Management of Childhood Diarrhoea. J Nepal Paediatr Soc 2018;38(2):94-101.
14) Kaur,S. Chowdhury,R. Kumar;Mothers' Beliefs and Practices Regarding Prevention and Management of Diarrheal Diseases. Indian Pediatrics; January 1994-Volume 31