

Knowledge Regarding Diarrhea Among The Mothers Of Under Five Children

Sujata G. Gaikwad ^{1*}, Dr. Vishwanath S. Biradar ²

¹ Clinical Instructor, MGM Mother Teresa College of Nursing Aurangabad, Maharashtra, India.

² Associate Professor, MGM Mother Teresa College of Nursing Aurangabad, Maharashtra, India.

E-mail: ¹*sujata1989gaikwad@gmail.coms

Abstract – Diarrhea is the major health problem in under five children. Worldwide, about 1.5 million children die of diarrhea, while 38% deaths occur in Asia. About 2 million episodes of diarrhea occur each year in India. 6.6 million deaths among children aged 28 days to 5 years: The present descriptive study aimed to assess knowledge regarding diarrhea among the mothers of under five children in selected area of Aurangabad city. 30 mothers of under-five children were included by nonprobability purposive sampling technique. Results of the study indicate that, the majority 23(76.66%) of the mothers of under five children had moderately adequate knowledge on diarrhea, followed by 4(13.33%) mothers had adequate knowledge and 3(10%) had inadequate knowledge regarding diarrhea.

1. Introduction

Children are our future and our most precious resources. In other words, the children are the budding human resources and future citizens of the nation. Healthy children are not only assets but also the stepping stone to build a strong and prosperous nation. Their survival, protection and developments a pre requisite for development of humanity. Protecting the health and development of children is a very long term contribution to the growth and development of the country as a whole.

As children constitute one third of total population, it becomes imperative to monitor the health status of children in the country and also taking care of children is very important issue, because children are most vulnerable to malnutrition, morbidity and mortality.

Diarrheal diseases are a major public health problem among under five children. Diarrheal diseases constitute one of the major cause of morbidity and mortality specially in children below five years of age. The morbidity rate in terms of diarrhea episodes per year per child under the age of five years is about 2 million.

The common diseases found in under five children are malnutrition, measles, mumps, chickenpox, polio, tuberculosis, typhoid, acute respiratory infections, pleural effusion, jaundice, rheumatic fever, intestinal obstruction, diarrhea, dysentery, appendicitis, anaemia, renal failure, convulsion, hydrocephalus etc.

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Diarrheal is the passage of loose, watery, or liquid stools passed more than three times a day. Acute diarrhoea is most often associated with infection lasting up to 7-14 days. Chronic diarrhoea remains more than 2-3 weeks & may return sporadically.

There are many causes of infectious diarrhoea which include viruses, bacteria and parasites. Noro virus is the most common cause of viral diarrhoea in adults but Rota virus is the most common cause in children under five years old.

1. Diarrhea can be caused by chronic ethanol injection.
2. Ischemic bowel disease.
3. Hormone secreting tumors.

Chronic mild diarrhea in infants and toddlers may occur with no obvious cause and with no other ill effects; this condition is called toddler's diarrhea. Most of the pathogenic organisms that cause diarrhea is known to be major cause of diarrhoea & are transmitted primarily or exclusively by faeco-oral route. Fae co-oral transmission may be waterborne, food borne, or direct transmission which implies an assay to other Faeco-oral routes such as via fingers, or fomites, or dirt which may be in jested by young children. Infections causing diarrhoea are viruses like rota virus, adenovirus, enteroviruses, etc., bacteria like vibrio cholera E. Coli, shigella, salmonella, other infective agents like E. histolytica, intestinal worms-etc.

2. Review of Literature

The reviews of literatures are organized under following headings:

1. Prevalence, morbidity, risk factors and etiology of diarrhoea
2. Knowledge of mothers of under five children regarding diarrhoea
3. Management and prevention of diarrhoea

These are extracted from 2001 to 2011 from various resources i.e PubMed, google scholar.

3. Literatures Related on Prevalence, Morbidity, Risk Factors and Etiology of Diarrhoea

A study was conducted on prevalence and etiology of nosocomial diarrhoea in children less than five years in Tikrit, Iraq. A sample size of 259 children was admitted for the cross sectional study in the paediatrics ward for reasons other than diarrhoea and hospitalized for more than three days. The result showed that stool samples showed nosocomial diarrhoea in 84 children. The study concluded that most common causative agents were *Escherichia coli* (25.9%), *Clostridium difficile* (21.0%) and Rota virus (18.5%).

A study was conducted to determine prevalence of Rota virus in acute diarrhoea among children of under five years and to describe the epidemiology. A prospective study during 1 year was conducted in the department of paediatrics B of the children's hospitals of Tunis. A sample size of 117 children admitted for acute community gastroenteritis was selected. The result showed that Rota virus diarrhoea accounted for 25% of acute gastroenteritis. The study concluded that the gastro enteritis Rota virus affects very young infants and has more severe symptoms.

A study was conducted on maternal depression increases infant risk of diarrheal illness-a cohort study in Islamabad, Pakistan. A sample size of 265 infants living in rural Rawalpindi, Pakistan was followed up for 1 year under prospective cohort designate. The result showed that infant of depressed mothers had significantly more diarrheal episodes per year than those of controls. The study concluded that maternal depression was associated with infant diarrheal morbidity in a low income community setting.

A qualitative study was conducted to explore community perspectives on changes in health related to diarrhoea and factors that may have contributed to these changes in Brazil. This study included 12 focus group sessions held with 50 mothers and 42 grandmothers in the state of Ceará. The results of the study showed that most grandmothers reported having lost at least one child to diarrhoea and all participants had witnessed children dying from diarrhoea in the past. This study concludes that the knowledge of diarrhoea and its causes in the community is broad, but many traditional beliefs about the illness still prevail.

A study was conducted in an attempt to portray the morbidity and risk factors of diarrheal among children under 5 years old (under-fives) in rural Upper Egypt. 1025 under-fives in six sentinel sites with their mothers or caretakers were collected as samples. Information was collected by interview technique. As per the results the incidence rate of diarrhoea was found to be 3.6 episodes per child semi-annually and the point prevalence was 19.5 per cent. The logit coefficients and their significance levels indicated that, in order of contribution to risk prediction, the variables ranked as follows: household meat consumption, mother's age at the time of birth of the child, child's age, and father's illiteracy.

4. Literatures Related To Knowledge on Diarrhoea

A study was conducted to study the socioeconomic correlates of infants' diarrhea as well as infants' mothers' knowledge and practice concerning diarrheal diseases at Kingdom of Saudi Arabia. Subjects were selected by systematic random sampling which included 300 infants (150 from Sulaimania Pediatrics Hospital and 150 from the Maternal and Childrens Hospital) with diarrheal episodes during the study period. Data was collected by structured open ended questionnaire. The researcher found that majority of parents of infants with diarrhea were illiterate mothers were mostly young aged 20 - 29 years, family income for about 40% of the subjects was less than 5000 Saudi Riyals per month. Diarrheal episodes were mostly in infants 6 months or less in age and first child in order with males more affected than females. Mothers' knowledge about many aspects of diarrhea was grossly deficient. The researcher concluded that intervention strategies to control infant's diarrheal episodes needs to be through an integrated approach aiming at boosting mothers' knowledge and improving their practice concerning diarrhea.

A pre and post comparison study was carried out in the field practice area of M.S. Ramaiah Medical College Bangalore, Karnataka to assess the impact of educational intervention on the knowledge of mothers of under five children on home management of diarrhoeal diseases. 225 mothers were selected for the study and was conducted in 3 stages. McNemar test was used to find out the change in knowledge before and after the educational intervention. The results showed that after the educational intervention, there was significant improvement on knowledge of mothers regarding definition of diarrhoea ($P < 0.001$), signs of dehydration ($P < 0.001$), awareness of ORS solution ($P < 0.001$), correct preparation of ORS solution ($P < 0.001$), shelf-life of ORS solution ($P < 0.001$), seeking health care ($P < 0.001$) and rational drug therapy during diarrhoea ($P < 0.001$).

A study was conducted to assess knowledge, attitude and practices of the mother regarding home management of acute diarrhea in their children in Sunsari district, Nepal. The list of 330 children on Plan 'A' treatment was prepared at 11 peripheral health institutions of Sunsari district. The mothers were interviewed at the time of home visit after 24 hrs to know the improvement in the child and also preparation and use of ORS. The result of the study suggests that majority (97.6%) of the mothers had information about ORS and also its usefulness in the management of dehydration due to diarrhoea. The researcher concluded that intervention such as increasing women's literacy, improving basic sanitation and health care services, and raising the general nutritional status of the population can only be expected to decrease the diarrhoeal diseases morbidity and mortality in long term.

A descriptive study conducted regarding knowledge attitude and practice of mothers on diarrhea in children in rural areas of 2 villages in Sudan. The sample size was seven groups of literate mothers (81mothers), 13 groups of illiterate (152mothers). The study shows that the mothers can define & describe diarrhea, however the awareness about etiology & importance of germs in causation was low. The majority of mothers attributed to diarrhea to teething, milk of pregnant woman, hot food & salt water. Less than 40% mothers symptoms & sign of dehydration, only 10% could relate danger sign to severe dehydration. The ORS use rate was very low (2.1-4.3%) only 25% mothers were able to prepare & use it correctly, 45% illiterate mothers had stopped breastfeeding & feeding during diarrhea, compare to 30% of literate mothers. Harmful practices were also used in caring of children. Hence the researchers concluded that the mothers having less knowledge, attitude & practice on diarrhea.

A study was conducted to assess parental knowledge of the causes and signs of diarrhea and dehydration in the United States. 219 parents/caregivers of children less than 5 years of age were selected and data was collected by interview method. The results show that general knowledge of diarrhea was related positively to accessibility of health information, level of education, ethnicity, and experience with dehydration. General knowledge of diarrhea, adjusted for level of education, was higher in African Americans than in Hispanics. Researcher concluded that In children, dehydration from diarrhea may be prevented by increasing parents'/caregivers' general knowledge of diarrhea and dehydration and the appropriate usage of oral rehydration solutions.

A retrospective study was conducted regarding knowledge & attitude of mothers about oral rehydration solution in few urban slums of Delhi. The sample consists of 457 mothers & data was gathered by interview method. The result showed 210 (46%) mothers used ORS packets for diarrhea remedy in under five children. Only 38.7% of mothers were able to tell the correct method of preparation, 4.16% mothers had knowledge about the exact quantity of ORS to be given to child suffering from diarrhoea. Many mothers (29.3%) believed that one needs is the prescription from doctors in order to buy ORS. The study concluded that poor literacy state limits the ability of mothers to utilize ORS properly for preventing diarrhoea induced dehydration.

A study was conducted on maternal understanding of diarrhoea-related dehydration and its influence on ORS use in Indonesia. Study was conducted on one hundred mothers of children under the age of five years in rural Indonesia. A structured questionnaire was, administered with an interview format in their homes. Only 38 (38%) of the mothers surveyed could identify two or more correct signs of dehydration and the use of ORS in home treatment (OR 3.36, 95% CI 1.24, 10.63). Researchers concluded that improved health education programming for mothers of young children, as well as future programme evaluation and intervention studies.

5. Literatures Related To Management And Prevention Of Diarrhoea

A quasi- experimental study was conducted to evaluate the effect of health education on home care of under- five children with diarrheal disease in Greater Wad Medani locality, Gezira State, Central Sudan. 118 mothers were selected by random sample that have at least one child under- five years of age with diarrhoea needing home management. The study was conducted in three phases. Phase one was a base line survey for the mothers, Intervention phase. Post intervention phase. Results showed that knowledge of mothers about definition of diarrhoea, its danger, when to seek medical help and the three rules of home management which was found to be 35,28,13 and 29% improved significantly after intervention to 91, 94,92 and 93% respectively with a very high significant level. The researcher recommends that volunteers are effective health education provider especially on household based intervention.

A cross-sectional study was conducted in Prague, Czech Republic to investigate home management of childhood acute diarrhea. The caregivers of 210 children ages 6 to 59 months were selected interview method was used to collect information about the knowledge and use of oral rehydration solution (ORS) and about management of the child's last episode of diarrhea. Results of the study showed that maternal knowledge of ORS (27.6%) and ORS use were low.

A qualitative study was conducted on food and personal hygiene perceptions and practices among care giver whose children having diarrhoea, at Tangerang, Indonesia. A sample size of twenty-four mothers whose monthly income has less than \$160 US and had latrines in their home. The result showed that mothers differentiated diarrhoea episodes as either disease or non-disease. The study was concluded that improving mother's knowledge while incorporating existing perceptions might lead to positive changes.

A cross sectional study was carried out on Management of Diarrhoea in Under-fives at Home and Health Facilities in Kashmir. Pretested interview schedule was used to collect the information. The results of the study suggest that the ORS use rate is low (24.4% and 8.4%) respectively in past and current episode. Cultural practices include harmful ones like starving to overcome the episode. The rate of Antibiotic use is higher with 77.9%. The researcher concluded that Kashmir valley faces the same problems in effective diarrhoea management as in other developing regions of India and the world, viz. less ORS use, high antibiotic use and harmful cultural practices like giving bowel rest.

A study was conducted to assess the magnitude of the problem of diarrhoea and time of initiation of its management in under five children of different socio economic status, in an urban area of West Bengal. The results show that prevalence of diarrhoea was 31.67%, highest in lower socio economic class (41%), higher in the girls, though not significant. Acute watery diarrhoea was most common (58.9%), followed by dysentery (24.2%) and persistent diarrhoea (16.9%). Persistent type was inversely proportional to socioeconomic status. Majority of mothers administered fluids or sought treatments within six hours in the middle socioeconomic class but beyond six hours in lower socioeconomic group ($P < 0.001$). Percentage of children where doctors' advice was implemented within 12 hours was inversely proportional to socio economic status ($P < 0.001$).

A Study was conducted on community based hygiene education to reduce diarrheal disease in rural Zaire. A sample size of 2082 children aged 3-35 months was collected at weekly home visits were undergone random study and structured observations of hygiene practices related to diarrhea were made on a subset of 300 families. The result show that children in intervention communities experienced an 11% reduction in the risk of reporting diarrhoea during the peak diarrheal season compared to controls ($p < 0.025$). The result of this study suggest that education on hygiene may be an effective approach to reduce the incidence and duration of diarrheal episodes in rural Zaire.

A descriptive study was conducted regarding maternal practice in infantile diarrhoea & oral rehydration therapy at institute of national de antroplogia histiria Mexico. The sample of 300 mother families was randomly selected for the study. The result showed that two practices considered to abstract the ORT most, were common infrequent use of ORS & contraindicated medications. On the other hand, the relationship between a correct concept of dehydration & a) Using ORS, b) not using contraindicated medication & c) limiting the use of traditional medication was also significant. The researcher concludes that the participation of health suppliers in reduction of the therapeutic practices should be further investigated, as well as their relationship with the reproduction pattern of social meaning through the net of social aids.

6. Conclusion

Total 19 studies were included in the article overall result or majority study result depicts that inadequate knowledge is observed among mother of under five children regarding diarrhea and its management. Hence there is need to education mother regarding consequence of diarrhoea and its management.

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