Journal Homepage: -www.journalijar.com
INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)
Article DOI:10.21474/IJAR01/7071
DOI URL: http://dx.doi.org/10.21474/IJAR01/7071

RESEARCH ARTICLE

A STUDY TO ASSESS THE RELATION BETWEEN PREVALENCE OF DIARRHEA AMONG UNDERFIVE CHILDREN AND KNOWLEDGE ON FEEDING PRACTICES OF THEIR MOTHERS, IN A SELECTED RURAL AREA, KOLAR DISTRICT, KARNATAKA, INDIA.

Radha MS[1], Lavanya Subhashini[2], Baby GK[3] and Komala Devi[3].

1. Professor, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.
2. Associate Professor, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.
3. Asst Lecturer, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.

Manuscript Info

Manuscript History

Received: 10 March 2018
Final Accepted: 12 April 2018
Published: May 2018

Keywords:-
Prevalence, Diarrhea, Under five children, Feeding Practices and Knowledge.

Abstract

Nearly half percentages of children of below 5years of the age are hospitalized for diarrhea. Parental carelessness and especially lack of hygienic practices followed during the feeding are the factors which increases the prevalence of diarrhea. This was a prospective descriptive survey done in rural areas of south Karnataka, on 60 mothers of under five children. The main objective of the study was to assess the Prevalence of diarrhea, among under five children and to assess the Feeding practices of mothers of under five children. A semi structured questionnaire was used to find out the prevalence of diarrhea and knowledge on feeding practices of mothers of under five children. Descriptive and inferential statistical methods were used to analyze the data. Findings revealed that the prevalence of diarrhea per child in a year was 2 episodes. Majority (57.66%) of mothers of under five children had inadequate knowledge on feeding practices and 48.3 % have moderate knowledge on feeding practices. There was significant correlation between prevalence of diarrhea and feeding practices of mothers of under five children. Conclusion: The study emphasizes on raising the knowledge level of mothers to adopt hygienic feeding practices as preventive measures to prevent diarrhea.

Introduction:-

Diarrheal diseases continue to be an important health problem in most of the developing countries. Diarrhea remains one of the major cause of death among the children of under five years of age causing approximately 6,00,000 deaths each year.[1] Worldwide there is an estimated1.3 million episodes of diarrhea in each year. Approximately 4.1 of all death occur in children living in rural areas of developing countries.[2-3] Prospective studies suggest lack of food hygiene by the mothers of under fives have severely affected the children and eight fold greater risk of mortality due to diarrhea.[4-6] Diarrhoea prevalence was lower among children whose mothers practice of early initiation of breastfeeding, exclusive and predominant breastfeeding. Early initiation of breastfeeding and exclusive breastfeeding were significantly associated with lower risk of diarrhea.[7,8] Diarrhoeal disease due to unsafe water and lack of sanitation is the greatest cause of morbidity and mortality in under-five children in the world, especially in poor countries.[9] Nearly 90% of diarrhea is attributed to unsafe drinking water, inadequate sanitation and poor

Corresponding Author:-Radha MS.
Address:-Professor, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.

hygiene. The determinants of acute diarrhea were also found to be the source of household water, non-availability of home-based water treatment, in adequate lavatory facilities and the consumption of left-over food stored at room temperature.[10-12] In addition to excess mortality and morbidity, diarrhea predisposes children to malnutrition, which makes them highly susceptible to other infections, and this has been found to be a major contributor to illness and death.[13] Nearly 83% of deaths results from moderate to severe form of diarrhea due to lack of knowledge on part of mothers, regarding proper hygienic preparation and feeding methods, which puts the babies at higher risk of getting diarrhea.[14]Appropriate feeding knowledge on practices can result in better growth and development of child. Hygienic methods of knowledge on feeding practice are an important aspect for prevention of diarrhea.

Objectives of the study:-

1. To assess the Prevalence of diarrhea, among under five children by using semi-structured questionnaire.
2. To assess the Feeding practices of mothers of under five children with diarrhea by using structured knowledge on practice questionnaire.
3. To determine the relation between the prevalence of diarrhea and knowledge on feeding practices of mothers of under five children.
4. To find out the association between selected demographic variables and knowledge on feeding practices of mothers

Materials and methods:-

Quantitative approach- descriptive survey was adopted for the study. The study was carried out at Keeluholali, Kolar district in Karnataka. Samples were selected by using purposive sampling techniques as per the inclusion criteria. The sample of the study comprises of 60 mothers of underfive children in the rural area. The inclusion criteria includes mothers of underfive children with present or past history of diarrhea, who can speak and understand Kannada and willing to participate in the study. A semi structured questionnaire was developed based on the objectives of the study. The tool consisted of demographic profile of subjects and questionnaire regarding prevalence of diarrhea and knowledge on feeding practices of mothers of underfive children. Ethical clearance was obtained from institute's ethics committee and formal permission was obtained from authority of the Primary Health Centre. Data collection was done for 3 months duration. Informed consent was taken from mothers of underfive children. They were explained the purpose of the study and confidentiality was assured. The Data which was obtained were analyzed and interpreted by using descriptive and inferential statistics. SPSS Version 16 was used for data analyses.

Results:-

Major Findings Of The Study:-

The findings revealed that Majority, about 58.33% of mothers of under fives in the rural area belongs to 21-25 years of age and about 48.33% has completed primary education. Majority (98.33%) of participants were house wives having family income less than Rs .3500/- per month (91.66%) and belongs to Joint family system (68.33%). Majority, 60% of under fives belongs to the age group of 1-3 years.

Table 1:-Prevalence Of Diarrhea

Sl. No	Age of Under five Child	Episodes of Diarrhea
1.	< 1 year	60
2	1-3 years	40
3.	>3-5 years	20

Table 1 indicates that the episodes of diarrhea is 60 among children less than one year age group, 40 among one to three years and 20 among three to five years of age group.

Table 2:-Distribution of participants according to their Knowledge on practice score **N=60**

Sl.no.	Knowledge on practice score	Frequency	Percentage
1.	Adequate	0	0
2.	Moderate	29	48.3%
3.	Inadequate	31	51.66%

The table 2 denotes that, majority (51.66%) of the mothers of under five children have inadequate knowledge on feeding practices and 48.3% of mothers have moderate knowledge on feeding practices

Table3:-Area wise distribution of knowledge on feeding practice score of the participants **N=60**

SL.NO.	AREA	NO. OF ITEMS	MAX.SCORE	RANGE	MEAN	MEAN%	STANDARD DEVIATION
1.	Knowledge related to diarrhea	5	5	1-4	2.55	51%	0.9023
2.	Knowledge related to dehydration	4	4	1-3	2.35	58%	0.8202
3.	Knowledge related to feeding knowledge on practices	21	21	5-15	9.53	45%	2.45

The table 3; depicts that majority of the mothers have 58% knowledge related to dehydration followed by 51% knowledge related to diarrhea and 45% knowledge related to feeding practices.

Table 4:-Association between prevalence of diarrhea and knowledge on feeding practices of mothers **N=60**

MEAN KNOWLEDGE SCORE	MEAN PREVALENCE SCORE	r value	INFERENCE
15	1	0.9	Significant

Table 4 indicates that there is significant positive correlation between prevalence of diarrhea and knowledge on feeding practices of mothers of under five children.

Table 5:-Association of knowledge on feeding practices with selected socio demographic variables **N=60**

Sl. No.	Demographic variables	Knowledge on Practice score (12)		P-value	Inference
		≤Median	>Median		
1.	Age in years a)<26yrs b)≥26yrs	 26 19	 20 10	3.352	Not Significant
2.	Education a)housewife b)govt. employee	 12 19	 07 22	1.472	Not Significant
3.	Income per month a)<3500/- b)>3500/-	 30 01	 29 00	0.9526	Not Significant
4.	Type of family a)<2 b)≥2	 29 02	 26 03	0.2963	Not Significant
5.	Type of family a)nuclear b) Joint	 10 21	 09 20	0.0464	Not Significant
6.	No. of children a)<2 b)≥2	 08 23	 08 21	0.0880	Not Significant
7.	Age of under fives a)<3 b)≥3	 34 07	 11 08	4.336	Significant
8.	Previous information a)Mass media &health personnel b)Family members	 25 05	 26 04	0.1296	Not Significant

df=1 at 0.05 level of significance, table value=3.84

Table 5 reveals that there is significant association only with age of underfives among all socio demographic variables with knowledge on feeding practice score.

Discussion:-

The prevalence of diarrhea is 2.8 episode/ child /year in our study. The prevalence of diarrhea was 6.1% in Tanzania.[15] Incidence of diarrhea per two week , morbidity was 2.27 episodes/child/year in rural Alwar.[16] The Average estimated incidence of diarrhea in children aged 0-6 years was 1.71 and 1.09 episodes/person/year in rural and urban areas of India.[17]

The prevalence of episodes of diarrhea is more among children less than one year. This could be due to introduction of weaning foods and practices related to preparation and feeding. Many studies[18,13] have also proved that the incidence of diarrhoea among infants is highest during the weaning period–a time when complementary foods are introduced to infants. However it has been well established that bottle-fed children are at greater risk of diarrhoea than those who are breast fed, due to milk contamination.

Majority of the mothers have average knowledge related to dehydration (58%) followed by knowledge related to diarrhea (51%) and knowledge related to feeding practices (45%). A study by Merga et al[19] found low (20.15%) knowledge level regarding the causes and transmission of diarrhoea by drinking unclean/unsafe water. Masangwi et al[20] pattern of maternal knowledge also found inadequate knowledge amongst responsible mothers both on causes and preventative measures against diarrhoea. Khalili M et al[21]study also found similar finding of moderate level of knowledge regarding diarrhea and diet. Adequate knowledge (75%) about ORS, its preparation and administration was found only by Masiha SA.[22]

There was a significant positive correlation between the knowledge score of mother with practice score pertaining to diarrhea which was similar to other finding.[22,23] Among association with socio demographic variables age of the child with knowledge on feeding practice score was found to be significant. This could be justified that as child grows mothers experience may have influence on good feeding practices. Educating mothers plays an important role in the prevention of diarrheal diseases and reducing morbidity due to diarrhoea.

Conclusion:-

This study showed that the mothers of under five children has average level of knowledge on feeding practices of their children. There was a significant positive correlation between the knowledge score of mothers with prevalence of diarrhea. Information education and communication strategy should be regularly enhanced among mothers of underfive children to improve good feeding practices to prevent the episodes of diarrhea.

References:-

1. Dorothy R. Marlow, Barbara A. Redding, “Text book of pediatric Nursing”, 6th edition, Elsevier Publication, Page no:346.
2. Centers for Disease Control and Prevention. Diarrhea: Common Illness, Global Killer Online: Centers for Disease Control and Prevention; 2016. Available from: http://www.cdc.gov/healthywater/global/diarrhea-burden.html
3. WHO ,Geneva “development of diarrhea ,Causative organism ,vaccine research, for developing counties, weekly epidemol ,1997, 35-40.
4. Kosek M, Bern C, Guerrant R, The global burden of diarrheal diseases as estimated from studies published between 1992 & 2000.Bull World health Organization : 81:187-204
5. Parashar U D, hammelman EG, Bresee JS, Miller MA, Glass RI. Global illness & deaths caused by Rotavirus disease in children. EMERG infect disease 2003;9:565-72
6. Gupta GR. Tackling pneumonia and diarrhoea: the deadliest diseases for the world's poorest children. Lancet. 2012 Jun 9; 379(9832):2123-4.
7. Lamberti LM, Fischer Walker CL, Noiman A, Victora C, Black RE. Breastfeeding and the risk for diarrhea morbidity and mortality.BMC Public Health. 2011 Apr 13; 11 Suppl 3:S15.
8. Ogbo FA, Page A, Idoko J, Claudio F, Agho KE. Diarrhoea and Suboptimal Feeding Knowledge on practces in Nigeria: Evidence from the National Household Surveys. Paediatr Perinat Epidemiol. 2016 Jul;30(4):346-55.
9. Dessalegn M, Kumie A, Tefera W. Predictors of under-five childhood diarrhea: Mecha District, West Gojam, Ethiopia. Ethiop J Health Dev. 2011;25:192–200.

10. Godana W, Mengistie B. Determinants of acute diarrhoea among children under five years of age in Derashe District, Southern Ethiopia. Rural Remote Health. 2013; 13(3):2329.
11. Kumar SG, Subitha L. Diarrhoeal diseases in developing countries: a situational analysis. Kathmandu Univ Med J (KUMJ). 2012 Apr-Jun; 10(38):83-8
12. Ahs JW, Wenjing T, Lofgren J, Forsberg BC. Diarrhoeal Diseases in Low- and Middle-Income Countries. *Open Infectious Diseases Journal* 2010; **4(123):** 113-124.
13. World Health Organisation. The Global Strategy for Infant and Young Child Feeding. Geneva: WHO, 2003. Available at http://www.who.int/nutrition/topics/global_strategy/en/ Assessed on Nov 2015.
14. Agustina S, Sari TP, Satroamidjojo S,Ingeborg MJ, Bovee-Oudenhoven IMJ, Edith JM etal. Association of food-hygiene practices and diarrhea prevalence among Indonesian young children from low socioeconomic urban areas. BMC Public Health. 2013; 13: 977.
15. Mashoto KO, Malebo HM, Msisiri E, Peter E. Prevalence, one week incidence and knowledge on causes of diarrhea: household survey of under-fives and adults in Mkuranga district, Tanzania.BMC Public Health. 2014; 14: 985.
16. Singh J, Gowriswari D, Chavan BR, Patiat RA, Debnath AC, Jain DC, Sharma RS, Sharma RC, Datta KK. Diarrhoeal diseases amongst children under five. A study in rural Alwar. J Commun Dis. 1992 Sep;24(3):150-5.
17. Lakshminarayanan S, Jayalakshmy R. Diarrheal diseases among children in India: Current scenario and future perspectives.J Nat Sci Biol Med. 2015 Jan-Jun;6(1):24-8.
18. Sutariya S, Talsania N, Shah C. Study of prevalence of diarrheal disease among underfive population. National journal of community medicine. 2011;2(1):96-99
19. MergaN Alemayehu T. Knowledge, Perception, and Management Skills of Mothers with Under-five Children about Diarrhoeal Disease in Indigenous and Resettlement Communities in Assosa District, Western EthiopiaJ Health Popul Nutr. 2015 Mar; 33(1): 20–30.
20. Masangwi SJ, Grimason AM, Morse TD, Kazembe L, Ferguson N, Jabu GC . Pattern of maternal knowledge and its implications for diarrhoea control in Southern Malawi: multilevel thresholds of change analysis.. Int J Environ Res Public Health. 2012 Mar; 9(3):955-69.
21. Khalili M, Mirshahi M, Zarghami A, Rajabnia M, Farahmand F. Maternal Knowledge and Prac-tice Regarding Childhood Diarrhea and Diet in Zahedan, Iran. Health scope international quarterly journal:2013;2(1)
22. Masiha SA, Khalid A, Malik, Ali Shah SM. Oral Rehydration Therapy-Knowledge, Attitude and Knowledge on practce (KAP)Journal of Rawalpindi Medical College Students Supplement; 2015:19(S-1):51-54.
23. Choube A, Bahal SP, Srivastava A, Sharma M. Knowledge and child care practices regarding childhood diarrhoea- A cross sectional study .Indian journal of community health.Jul – Sep 2014;26(3):285.