ORIGINAL RESEARCH PAPER

Volume-7 | Issue-5 | May-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ASSOCIATION OF MOTHER'S SOCIO-DEMOGRAPHIC STATUS WITH INCIDENCE OF DIARRHEA IN AGE GROUP 2 MONTHS TO 60 MONTHS

Pediatrics

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ABSTRACT

Background Diarrhoea is the second leading cause of death worldwide in children under five years of age. Simple targeted interventions can control the major proportion of these episodes. However, if their awareness amongst the mothers is low, local success of these measures will be ineffective.

Objective To determine the association of diarrhea in children 2-60 months of age with socio-demographic status of the mothers.

Design A hospital-based cross-sectional study was conducted in the Department of Pediatrics, Kamla Nehru Hospital, Bhopal using a pre-tested questionnaire and face-to-face interviews with the mothers of the study group.

Results Diarrhea was seen more prevalent in upper lower (78.9%) and lower middle (21.1%) class patients. 51.7% families resided in kuccha houses. 79.2% mothers were 20-30 year old, 51.4% were illiterate and 27.2% were daily wage labourers.

Conclusions Low socio-demographic status of the mothers lowers their awareness regarding diarrhoeal prevention and negatively impacts children's health in the given rural setting,

KEYWORDS

Diarrhoea, mother, illiteracy, hygiene

INTRODUCTION

Diarrhoeal disease is responsible for about 9 percent of all deaths in under-five age group. This equals to a total of 1400 deaths per day or 525 000 deaths per year. In India, this lists as the third leading cause of under-five mortality, preceded by pneumonia and perinatal causes [1]. Apart from the risk of mortality, repeated episodes of diarrhea deprive children from their basic nutritional supplementation and result in long term adverse outcomes [2].Even though diarrhoeal morbidity and mortality has decreased in the past two decades, the overall disease burden remains unacceptably high, particularly in developing countries like ours. Diarrheal control does not require higher technology. Information on determinants of diarrheal diseases can be particularly helpful in shaping the preventive and control strategies to further reduce the disease burden in the society.

One of the important determinants of this disease is the mother's knowledge, attitude and practices prevalent in that society. Simple measures such as drinking water treatment, improved hygiene and sanitation, breast feeding, ORS preparation and dispensing are enough to control maximum cases. But in the scarcity of this awareness amongst mothers, even simple episodes of watery diarrhea can become prolonged and complicated[3].This study aimed at determining the association between the socio-demographic status and the incidence of diarrhea in patients admitted in a tertiary care centre with diarrhea.

MATERIALS AND METHODS

This was a hospital based cross sectional study, in which all children in the age group of 2months to 60 months were included from January 2016 to December 2016 who was admitted with chief complaints of loose stools in the last 7 days. A pre-tested questionnaire was used as the data collection tool and face to face interviews were conducted on mothers of children. Data regarding mother's age, occupation, level of education, socio-economic status and type of house were collected. Socio-economic class was labelled according to the Kuppuswamy Scale. Children of age less than 2 months or more than 60 months, diarrhea lasting for more than 7 days at the time of admission, episodes of loose stools less than 3 per day, patients being treated on OPD basis and those with non-consenting caregivers were excluded from the study.

STATISTICAL ANALYSIS- All the data were analysed using IBM SPSS ver.20 software. Results on continuous measurements were presented on Mean SD (Min-Max) and results on categorical measurements were presented in Number (%). Significance was assessed at 5% level of significance. Chi-square/Fisher Exact test was used to find the significance of study parameters on categorical scale between two or more groups. Student t test and ANOVA were used to compare the mean of quantitative variables. Null hypothesis of discrepant results was declined when p-value were less ≤ 0.05.

RESULTS

Table 1- Distribution of cases according to socioeconomic status

Socioeconomic Status/Kuppuswamy Score	Male N (%)	Female N (%)	Total N (%)
Class III (Lower Middle)	43(12.1%)	32(9.0%)	75(21.1%)
Class IV (Upper Lower)	140(39.3%)	141(39.6%)	281(78.9%)

Table 1 reveals demographic distribution of cases according to Socioeconomic Status. Diarrhea was seen more prevalent in Class IV (Upper Lower) patients i.e. 281(78.9%) and followed by 75(21.1%) Class III (Lower Middle) patients. Diarrhea was not reported in upper and upper middle class patients.

Table 2- Distribution of cases according to Type of House

House Type	Male N (%)	Female N (%)	Total N (%)
Kuccha	90(25.3%)	94(26.4%)	184(51.7%)
Pucca	93(26.1%)	79(26.1%	172(48.3%)

Table 2 reveals distribution of cases according to House Type. Out of 356, diarrhea was slightly more prevalent among residence of kuccha house i.e. 184(51.7%) and 172(48.3%) were staying in pucca house.

Table 3- Distribution of cases according to Mother's age group

Mother Status	Number	Percentage
Mother's Age Group		
<20 Year	41	11.5%
20-30 Year	282	79.2%
>30 Year	33	9.3%

Figure 1: Distribution of Cases of Diarrhea according to Mother's Literacy

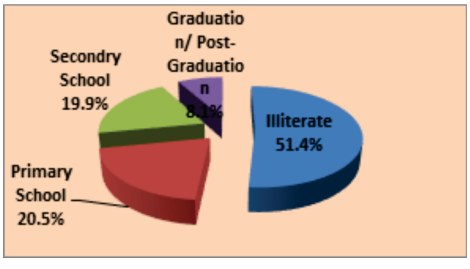

Figure 2: Distribution of Cases of Diarrhea according to Mother's Occupation

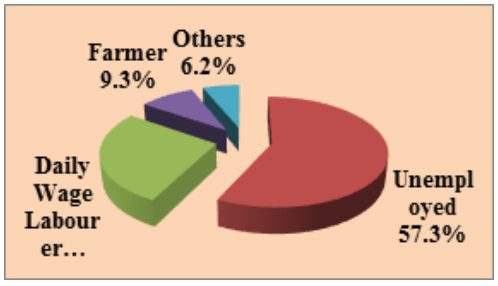

Table 3/Figure 1, 2 reveals distribution of cases according to Mother's Demographic Status. Most of the mothers 282(79.2%) were 20-30 year old. Out of 356 cases of diarrhea, most of mothers were illiterate i.e. 183(51.4%) and only 29(8.1%) were graduate or post graduate. Most of mothers 204(57.3%) were unemployed and 97(27.2%) were daily wage labourers.

DISCUSSION

In our results defining socioeconomic status according to modified Kuppuswamy scale, diarrhea was seen more prevalent in Grade IV (Upper Lower) patients (78.9%) followed by Grade III (Lower Middle) (21.3%) patients. Diarrhea was not reported in upper and upper middle class patients. This is in conformity with other studies [4,5,6]. Lower socio-economic status is an important risk factor for high prevalence of diarrhea. This seems to be true due to the fact that children belonging to such families are deprived of many basic necessities and requirements. Storage of food is in open as refrigerators are unavailable. Chances of their being stale and exposed to flies is much more than that refrigerated food.

Diarrhea was slightly more prevalent amongst residents of kuccha house. House type and socioeconomic status become significant due to the fact that sanitation services, garbage disposal and availability of safe drinking water orbit around these domains of study [7].

Mother's knowledge and attitude have significant impact on the health of a child. The awareness amongst the mothers regarding health, disease and preventive services can be used to measure the progress of family, community and the country. In our study, most of the mother's i.e. 79.2% belonged to age group 20-30 years. The association between the age of the caretaker and disease rates may be explained through an increasing experience in childcare, improving hygiene and feeding practices with advanced age [8].

Education is a vital tool in enlightening mothers and also changing their healthcare seeking behaviour and practice. This knowledge is said to affect their behaviour, especially as it relates to child rearing practices and healthcare [4,7,8,9,10,11,12,13]. A woman with even basic levels of education is more competent to understand the importance of hygienic rearing practices for children as compared to an illiterate woman. A literate woman is able to take decisions regarding the severity of disease that her child might be suffering with and is also able to recognise the health care facilities that are available close to her house for her children. She understands the proper preparation and dispensing of ORS which is crucial in management of acute episodes of watery stools. In our study, 51.4% mothers were illiterate and 20.5% had primary schooling. Only 8.1% had formal education till college.

A working mother, especially daily wage labourers, might pay less attention to a child's health and sanitation. Children from such families are usually deprived of the essential care and attention that they require to keep their activities in check. Toddlers usually move about mouthing almost everything coming in their way. This increases the chances of feco-oral transmission and predisposing them to increased rates of diarrhea. Also, feeding and nutrition in these children is hampered as mother's are usually not available for breast feeding and hence use of bottle feeds and top feeds which in itself is a major risk factor for occurrence of diarrhea. Quality of child care is significantly compromised in setups where mother is working [8]. In our study, 27.2% mothers were daily wage labourers whereas 57.3% were housewives. This disparity can be explained by the low to middle income group prevalence and rural culture of the society in this part of the country wherein most women are kept at home doing routine household chores.

CONCLUSION

This study has identified that mother's or the primary caretaker's socio-demographic status significantly determines the incidence and prevalence of diarrheal episodes in a society. Primary measures such as improving hygiene, sanitation, and safe drinking water, rates of breast-feeding and increasing use of ORS in the society cannot be done until and unless the beneficiary is aware of the facilities and is ready to implement them. Preventive and control strategies should hence be directed at improving mother's knowledge, attitude and practices who are essentially the primary caretakers in most of the families in developing countries.

REFERENCES

1. WHO diarrheal diseases factsheets http://www.who.int/mediacentre/factsheets/fs330/en/
2. Kliegman RM, Stanton BF, St. Geme JW III, Schor NF, Behrman RE. Nelson textbook of paediatrics 1st South Asia ed. Philadelphia: Reed Elsevier, 2016: 1854-55
3. Final_Diarrhoea_Report_October_2009_final https://www.unicef. org/health/files/Final_Diarrhoea_Report_October_2009_final.pdf
4. Sadasiba Padhy, Rajesh Kumar Sethi, Narendra Behera. Mother's knowledge, attitude and practice regarding prevention and management of diarrhoea in children in Southern Odisha.Int J ContempPediatr. 2017 May;4(3):966-971
5. Avisek Gupta, GautamSarker, Arup Jyoti Rout, TanushreeMondal and Ranabir Pal. Risk correlates of diarrhea in children under 5 years of age in slums of Bankura, West Bengal. J Glob Infect Dis. 2015 Jan-Mar; 7(1): 23-29
6. Banerjee B, Hazra S, Bandyopadhyay D. Diarrhea Management Among Under Fives. Institute of Hygiene and Public Health, India, 2003.
7. Hbatu M, Nsabimana J, Mureithi C (2017) Factors Contributing to Diarrheal Diseases among Children Less than Five Years in Nyarugenge District, Rwanda. J Trop Dis 5: 238.Katharina Diouf
8. Patrik Tabatabai, Jochen Rudolph and Michael Marx. Diarrhoea prevalence in children under five years of age in rural Burundi: an assessment of social and behavioural factors at the household level. Glob Health Action. 2014; 7: 10.3402/gha.v7.24895.
9. Khalili M, Mirshahi M, Zarghami A, RajabniaChenari M, Farahmand F. Maternal Knowledge and Practice Regarding Childhood Diarrhea and Diet in Zahedan, Iran. Health Scope.2013; 2(1).
10. Ghasemi AA, Talebian A, MasoudiAlavi N, Mousavi GA. Knowledge of Mothers in Management of Diarrhea in Under-Five Children, in Kashan, Iran. Nurs Midwifery Stud. 2013;2(1):158-62.
11. Gupta P, Murali MV, Seth A. Epidemiology of diarrhea in urban slums. Indian Pediatr. 1998 Feb;35(2):147-51
12. Yilgwan CS, Okolo S N. Prevalence of diarrhea disease and risk factors in Jos University Teaching Hospital, Nigeria. Ann Afr Med 2012;11:217-21
Ansari Mukhtar
13. Mohamed Ibrahim Mohamed Izham and Ravi Shankar Pathiyil. A survey of mothers' knowledge about childhood diarrhoea and its management among a marginalised community of Morang, Nepal.Australas Med J. 2011; 4(9): 474–479.