



HEALTH CARE SEEKING PRACTICES DURING DIARRHEA IN UNDER-FIVE CHILDREN

Rahul Pengoria^{1*}, Nitin Tiwari², Avnish Kumar³, Mukesh Sharma⁴

^{1*} Associate Professor, Department of Pediatrics, ASMC Firozabad (Uttar Pradesh)

² Department of Community Medicine, Autonomous State Medical College, Firozabad (U.P.)

³ Department of Pediatrics, Autonomous State Medical College, Firozabad (U.P.)

⁴ Department of Community Medicine, Autonomous State Medical College, Firozabad (U.P.)

***Corresponding Author:** Rahul Pengoria

*Department of Pediatrics, Autonomous State Medical College, Firozabad (U.P.)

Abstract

Introduction: Under-five age group is one of the vulnerable age groups for developing the infectious diseases. Diarrheal diseases remain the second most leading cause of death next to pneumonia among under-five mortality globally, contributing to one-fifth of child deaths. This study addressed the health care seeking practices among mother of under-five children and to make recommendations for the improvement of health services and health awareness in the studied population.

Materials & Methods: An observational, cross sectional study was undertaken among 282 mothers of under-five children with diarrhea, who visited in Pediatrics department, ASMC, Firozabad, UP. A semi structured, pre designed questionnaire was used for data collection.

Results: Most of mothers (69.15%) were aware of diarrhea while 30.85% mothers were unaware of diarrhea. About half of study mother (49.65%) treated their children at home during diarrhea while 123 (43.62%) mothers went for healthcare to the available healthcare facility and 19(6.74%) mothers didn't do anything and just waited. A significant association was also seen with occupation of mothers as health seeking was proper in working mothers.

Conclusion: Avoidance of feeding restriction and promotion of Breast feeding in children during diarrhea is important measure to be addressed and there is an urgent need to educate the mothers regarding these measures.

Keywords- Diarrhea, Health care seeking, Under-five children

INTRODUCTION:

Under-five age group is one of the vulnerable age groups for developing the infectious diseases. *Diarrheal diseases remain the second most leading cause of death* next to pneumonia among under-five mortality globally, contributing to one-fifth of child deaths. It kills more children than AIDS, Malaria, and Measles combined [1].

The GAPPD aims to decrease *diarrhea attributable mortality to less than one death per 1000 live births and to reduce the incidence of severe diarrhea by 75% compared to 2010 levels by 2025*. In order to attain these targets, coverage of appropriate diarrhea management must increase to 90% by 2025, and access to sanitation and drinking water should be universal in healthcare facilities and households by 2030 [2].

To intensify efforts to achieve MDGs, the WHO/UNICEF introduced *Global Action Plan for Prevention and Control of Pneumonia and Diarrhea (GAPPD)*, which said that commitment to ensure 80% of world's children having access to interventions and immunization to 90% of children will ensure elimination of diarrhea by 2025 [3].

Diarrhea is more common in setting areas of poor sanitation and hygiene, including a lack of safe drinking water and among all diarrheal deaths, *88% is attributable to unsafe drinking water, inadequate sanitation, and poor hygiene*. International Centre for diarrheal Disease Research, Bangladesh, considered leader in diarrheal research is credited with the discovery of oral rehydration therapy (ORT) and zinc supplementation, which is saving millions of children worldwide from diarrheal deaths, The active participation of mothers in diarrheal treatment; so that they are equipped with the confidence to treat it themselves. It also focused on improvement of hygiene, safe water, and sanitation through community-led approaches [8].

Slum population in India, is also rising as similarly to the worldwide trend and the Census of India, 2011 officially puts the figure around 65 million. Slum populations often suffer multiple deprivations such as inadequate water supply, poor environmental sanitation, inadequate housing condition, overcrowding, lack of proper disposal and poor hygiene measures overburdened healthcare service [10, 11].

A mother occupies pivotal role in relation to health of the family, especially for young children. If mother is educated and having significant health awareness, will take the responsibility of increasing the family health, which facilitates high standards of living. Proper health seeking practices among the mothers lessens the mortality and morbidity of under-five children. Since the child is unable to carry out even their daily activities mothers will be active health care takers or providers. So that mother's awareness and their health seeking practices are very essential.

Today, diarrheal diseases are one of the most important health problems in under-five children. Diarrheal diseases are one of the leading causes for under-five children's morbidity and mortality. Although there has plenty of research done on diarrhea but there is lack of literature mentioning role of mothers in diarrhea and various determinants via. Awareness regarding diarrhea and its prevention, knowledge and practices of ORS, its use and health seeking practices during diarrhea.

So, there is immense need to assess these determinants among mothers of under-five children and to find out their association with diarrhea in under-five children. With this background, this study address to find health care seeking practices among mother of under-five children and make recommendations for the improvement of health services and health awareness in the studied population.

MATERIALS & METHODS:

Study Design: An observational, descriptive, cross sectional study.

Study Duration: from May 2024 – April 2025

Methodology:

In this study a semi structured, pre designed questionnaire was used to collect socio-demographic components of mothers and their children including nutritional status and immunization status. The health seeking practices during diarrhea were collected from each study subjects.

Inclusion criteria:

The study includes the mothers, who were

- Having under-five children.
- Available during the period of data collection.
- Willing to participate in the study.

Exclusion Criteria:

The study excluded the mothers, who were

- Not having under-five children.
- Not available during the period of data collection.

- Not willing to participate in the study.

Sample Size:

Considering the prevalence of diarrhea episodes in under-five children within last 2 weeks from previous studies (15%) and from pilot study done in the study area, the sample size was calculated using the formula,

$$N = Z^2 \times PQ/L^2$$

Where, $Z^2 = 1.96$, taking 20% as the prevalence (**P**) and 5% as the allowable error (**L**), and 10% non-responsive, sample size (**N**) was 228.

Data analysis:

The data collected and analyzed using Epi-info 7.2.0.1 Software package. Data expressed as percentages, proportions and the difference in proportions measured by Chi-Square test. Inferential statistics with various socio-demographic characteristics, knowledge of ORS and health seeking practices using chi-square test. *The p-value < 0.05* was considered statistically significant.

RESULTS:

Total 282 mothers of under-five children with diarrhea had enrolled during study period and socio-demographic profile of these children evaluated. On considering awareness of mothers, most of mothers 195(69.15%) were aware of diarrhea while 87(30.85%) mothers were unaware of diarrhea. Among those who knew about diarrhea, 75(38.46%) thought that increased frequency of stools is known as diarrhea and 60(30.77%) mothers said loose stool or color change as sign of diarrhea. Only 60(30.77%) mothers knew the correct meaning of diarrhea. [Table 1]

Study mothers of under-five children with diarrhea were further interviewed regarding feeding practices. Out of 282 mothers, 105(37.23%) mothers restricted the diet of children during diarrhea while 177 (62.77%) did not restrict the diet. Among 105 mothers who restricted the diet of children during diarrhea, 77(73.33%) mothers completely restricted the diet while 28(26.67%) mothers partially restricted the diet. [Figure 1]

Table 1: Distribution of Mother's awareness about diarrhea

Mother's awareness about diarrhea			
	Response	Frequency	Percent
1.	Yes	195	69.15%
a)	Frequent stools/day	75	38.46%
b)	Loose stool or color change	60	30.77%
c)	Both	60	30.77%
2.	No	87	30.85%
Total		282	100%

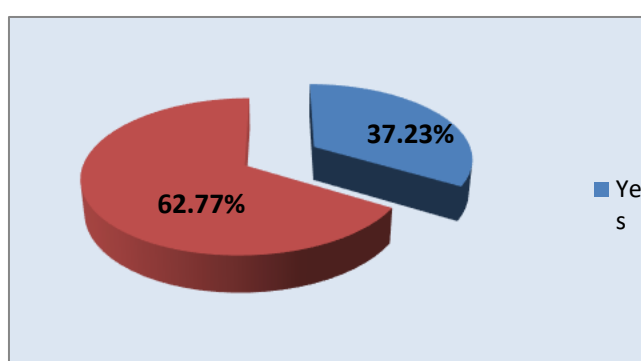


Figure 1: Pie diagram showing feeding restriction by mothers during diarrhea

Figure 2 & Table 2 shows that out of total 282 mothers, 160(56.74%) mothers breast fed their children. During diarrheal episodes out of these 160 mothers, 88(55%) mothers continued breast feeding during the episode of diarrhea while 72(45%) mothers didn't prefer to breast feed their children during episodes of diarrhea. About half of study mother (49.65%) treated their children at home during diarrhea while 123 (43.62%) mothers went for healthcare to the available healthcare facility and 19(6.74%) mothers didn't do anything and just waited.

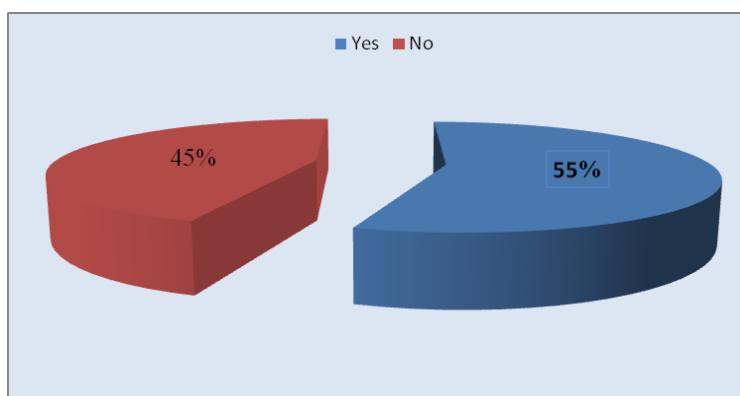


Figure 2. Pie diagram showing mothers with continued breast-feeding during diarrhea

Table 2: Health care seeking by mothers during diarrhea

Variables	Frequency	Percent
Do nothing just wait	19	6.74%
Treat at home	140	49.65%
Take to health faculty	123	43.61%
Total	282	100%

On considering treatment seeking behavior during diarrhea, 123 mothers who took their children to health care facility further interviewed. Table 3 shows that among these 123 mothers, 40(32.52%) visited nearby local practitioners/quacks clinic for treatment followed by government hospitals, 37(30.08%). 24(19.50%) mothers visited private hospitals followed by registered doctor/pediatrician 15(12.20%). 7(05.70%) mothers took their children to Jhad-phook baba.

On considering association of health seeking during diarrhea with socio-demographic profile of mothers a significant association was found with age and education of mothers [**p-value=0.004 and 0.0001 respectively**]. Results show that there is proper health seeking among mothers with increase in age and education. A significant association was also seen with occupation of mothers [**p-value=0.001**], as health seeking was proper in working mothers. Other variables like type of family, religion and marriage status of mothers were not found to be statistically significant.

Table3: Mother's treatment-seeking during diarrhea

Treatment seeking by mothers	Frequency	Percent
Local practitioner/ quacks	40	32.52%
Government hospital	37	30.08%
Private hospital	24	19.50%
Registered doctor/ pediatrician	15	12.20%
Others	7	05.70%
Total	123	100%

DISCUSSION:

Overall period (last 2 weeks) and point (24 hrs) prevalence rates of diarrheal diseases among children under-five age calculated which came to the order of 36.01% and 12 % respectively. The study revealed a higher prevalence of diarrhea in under-five children than NFHS-IV [4], Ahmed et al. study [8] Banerjee B et al [9] and Gilany A H E L et al [10].

These rates were highest in the age group of 6–11 months (59.3%) and were lowest among children aged 25–36 months (18%) similar to Ahmed et al. study [8] and Gilany A H E L et al [10]. This is due to declining in maternally acquired antibodies and the introduction of complementary foods. In higher age groups, the probably lower rate may be because the children have started adopting the environment and food habits and the immunological system has developed to a large extent. In another developing country Nigeria, ONIGA et al (1996) [11] also found diarrheal disease significantly higher among children aged 6 – 11 months. An association of diarrhea with socio-demographic determinants of children, highly significant association was found with age of under-five children on shifting the child from mother's milk to another type of food similar to the study of Ahmed et al [8]. This shows that there is an increase in diarrhea in under-five children changing feeding from mother milk to other means. Other determinants like child sex, religion and caste were not found statistically significant.

Effective early management at home level and health seeking by caregivers are the key strategies in acute diarrheal diseases (ADD) programs [38]. With these facts, mothers of study area were further interviewed regarding health seeking during diarrheal episodes.

The findings of present study suggested that about half of them, 140(49.65%) treated their children at home during diarrhea while 123 (43.62%) mothers seeking for healthcare at healthcare facility and 19(6.74%) mothers didn't do anything just wait similar to **Mohammed S and Tamiru D [6] study**, a large number of mothers, whose child had diarrhea, did not do anything and tried to manage the diarrhea at home level. In **Sutariya S et al [9]** and **Dr. C. Shiva Ram [6]** study, most of the cases treated at home which is an identical finding observed in studies in other parts of India. Similarly in **Richard Omore et al [16]** study, mothers less likely to seek healthcare outside the home for children with diarrhea. It was observed in **Sutariya S et al [9]** study that most of mothers did not consider diarrhea to be dangerous and try to use home remedies.

On considering treatment seeking among mothers, present study highlights findings that among total of 282, 123 mothers who took their children to health care facility further interviewed. Among these 123 mothers, 40(32.52%) visited nearby local practitioners/quacks clinic for treatment followed by government hospitals, 37(30.08%). These findings are differ from **Merga N el al [32]** study and **Othero et al [30]** study which showed that majority of the mothers reported that they sought treatment from licensed medical practitioners for their children. **Richard Omore et al [16]**, Seeking care outside the home, especially from a government or public sector.

In our study, 24(19.50%) mothers visited private hospitals followed by registered doctor/pediatrician 15(12.20%). 7(05.70%) mothers took their children to Jhad-phook baba similar finding by **Sudipta Basa study [2]**, revealed that mothers and care givers of the under-five children generally seek medical advice from private doctors. This is consistent with the findings of the study conducted by **Jain SK et al [6]** and **Sinha and Srivastava [55]** study.

CONCLUSION:

Childhood diarrhea remains an important health concern in this study. Multi-pronged approaches need to be encouraged to combat the morbidity and mortality caused due to diarrheal diseases. Avoidance of feeding restriction and promotion of Breast feeding in children during diarrhea is important measure to be addressed and there is an urgent need to educate the mothers regarding these measures. The findings of our study can be used as baseline data for policy makers in formulation, regional as well as national infants and young health guideline and achievement of sustainable development goals in the reduction of child mortality.

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