

## A Study to Assess the Knowledge and Practices Regarding Prevention and Management of Diarrhea Among Mothers of Infant in Selected Urban and Rural Areas of District Faridkot, Punjab

**Received:** 25 October 2022, **Revised:** 26 November 2022, **Accepted:** 29 December 2022

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### Keywords

Knowledge, practices, prevention, management, diarrhea.

### Abstract

**AIM:** To assess knowledge and practices regarding diarrhea among mothers of infants.

#### MATERIAL AND METHODS:

A quantitative research approach and a comparative descriptive research design were used. The sample size was 100 mothers of infants, selected using the purposive sampling technique. The Data were collected using a structured interview schedule with the help of a self-structured knowledge questionnaire and a practice checklist. Descriptive and inferential statistics were used to analyze the data.

#### RESULTS:

The study revealed that mothers of infants in urban and rural areas 96% and 80% had adequate knowledge and in urban and rural areas 4% and 20% had inadequate knowledge respectively. Furthermore in urban and rural areas 86% and 72% had highly satisfactory practices and in urban and rural areas 28% and 14% had unsatisfactory practices respectively. The mean $\pm$ SD for the level of knowledge and practices of mothers of infant were 18.88  $\pm$  3.147, 15.32  $\pm$  2.875 and 18.06  $\pm$  2.004, 16.86  $\pm$  1.852 for urban and rural areas mothers of infant respectively. So mean and SD was slightly high for both knowledge and practices among urban area mothers of infant as compared to mothers of infant in rural areas.

#### CONCLUSION:

The results concluded that the level of knowledge and practices of mothers of infant in urban areas were higher than those of mothers of infant in rural areas.

### 1. Introduction:

Diarrhea is a prevalent disease and one of the most influential factors in determining the mortality and morbidity of children. This is most common leading causes of death of children in developing nations. Each year, over one million children perished from diarrhea-related diseases. In India, diarrheal disease is the third major cause of death and morbidity. The World Health Organization estimates that 88 % of all diarrheal infections are caused by unsafe water supplies, insufficient sanitation, and poor hygiene.<sup>1</sup>

In undeveloped countries, diarrhea is one of the three leading causes of children's death rate. On average, a

child suffers from 12 episodes of diarrhea, four of which occur during the first year of life.<sup>2</sup>

Each year, roughly 4-5 million fatalities are attributed to diarrheal disease on a global scale. Eight of their ten fatalities occur during the first two years of life. In India, diarrhea accounts for around 20% of hospitalized paediatric cases.<sup>3</sup>

Diarrhea is caused by bacteria, viruses, and parasites. Antibiotics and iron supplements might potentially cause diarrhea. Food-related causes, such as food poisoning and food allergies. Under 2 years of age is a factor that increases the risk for diarrhea. Seasons is summer and rainy, socioeconomic status is

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impoverished households, and dietary factors are more in artificially fed children than in breastfed children.<sup>4</sup>

Typically, diarrhea is a infectious disease of the digestive system, which may be caused by range of microorganisms such as bacterial, viral, and parasite species. Infections may be spread by contaminated food or drink, or from human to human as a result of poor hygiene. The majority of diarrheal episodes are self-limiting; however, dehydration is the leading cause of death. ORS is the most effective single method for avoiding diarrheal fatalities. ORS is deemed affordable and easy for mothers to take at home as soon as diarrhea symptoms appear.<sup>5</sup>

Diarrhea is one of the most significant symptoms of disease in infants and children. It is characterized by an increase in stool fluidity, consistency, and volume, as well as a probable change in stool color, compared to the individual's normal stool pattern. Breast-fed newborns may have numerous stools each day, but formula-fed infants may only have one stool every other day.<sup>6</sup>

“WHO defines diarrhea as the passage of three or more loose stools per day, or the passage of more stools than is typical for the patient's age.” Significantly more significant than the number of stools is changes in stool consistency.<sup>4</sup>

It is gastrointestinal disorder. Rotavirus is responsible for about 50% of infant diarrhea cases and leading cause of hospitalization due to gastroenteritis. Worldwide, rotavirus is responsible for 600000 to 100000 deaths per year. Although fecal oral transmission is the most common route, respiratory infection is also possible.<sup>7</sup>

Death from diarrhea is more likely to occur in infants and newborns than in older children and adults. The outlook is bleak for malnourished youngsters with diarrhea. The outcome is negatively affected by dehydration, an electrolyte imbalance, or bronchopneumonia.<sup>8</sup>

By educating the mother about “vaccination (Rotavirus), home remedies such as ORS, clean drinking water and sanitation, exclusive breast feeding for at least the first six months, proper personal and food hygiene, and fly control, diarrhea may be avoided and treated.”<sup>9</sup>

## OBJECTIVES OF THE STUDY

1. To assess the level of knowledge regarding prevention and management of diarrhea

among mothers of infants in selected urban and rural areas.

2. To assess the level of practices regarding prevention and management of diarrhea

among mothers of infants in selected urban and rural areas.

3. To compare the level of knowledge regarding prevention and management of diarrhea among mothers of infants in selected urban and rural areas.

4. To compare the level of practices regarding prevention and management of diarrhea

among mothers of infants in selected urban and rural areas.

5. To find out the significant association level of knowledge regarding prevention and

management of diarrhea among mothers of infants with their selected demographic

variables.

6. To find out the significant association level of practices regarding prevention and management of diarrhea among mothers of infants with their selected demographic variables.

## 2. Methodology:

1. Research approach: Quantitative Research approach was used.

2. Research design: A comparative descriptive research design was used.

3. Research setting: Selected rural and urban areas.

4. Target population: Mothers of Infant

5. Sample size: 100 mothers (50 from urban and 50 from rural areas).

6. Sampling technique: Non-probability purposive sampling was used.

7. Selection and development tool: Self structured questionnaire for assessing knowledge and self structured check list for assessing practices.

8. Criterion measures:

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Knowledge criteria: Knowledge score was categorized into 2 levels

LEVEL	SCORE	%AGE
Adequate	13- 25	52-100%
Inadequate	0 -12	0-48%

Maximum score = 25

Minimum score = 0

Practice Criteria: Self-structured checklist score is categorized into 2 levels

LEVEL	SCORE	%AGE
Satisfactory	16 - 20	80 - 100%
Unsatisfactory	0 - 15	0 - 75%

Maximum score = 20

Minimum score = 00

9. Reliability of tool: Reliability was determined by Karl Pearson coefficient of correlation. Knowledge questionnaire reliability was 0.92 and practices reliability was 0.90

10. Ethical consideration: Permission was obtained from the ethical committee.

11. Plan for data analysis: The data was analyzed and interpreted using descriptive and inferential statistics such as “frequency, %age, mean, median, standard deviation, correlation coefficient, t-test, significance level of p 0.05, and Fisher test. The data is represented as tables and bar diagrams.”

12. Statistical software: IBM SPSS Version 26 was used.

### 3. Results:

**Table1** The level of knowledge regarding prevention and management of diarrhea among mothers of infant in selected urban area.

N=50

S. No	Level of knowledge	Score	f	%	Mean±	SD	Median (IQR)
1.	Adequate	13-25	48	96	18.88	3.147	20(4)
2.	Inadequate	0-12	04	04			

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**Table 2** The level of knowledge regarding prevention and management of diarrhea among mothers of infant in selected rural area. N=50

S. No	Level of knowledge	Score	f	%	Mean±	SD	Median (IQR)
1.	Adequate	13-25	40	80	15.32	2.875	15.50(4)
2.	Inadequate	0-12	20	20			

**Table 3** The level of practices regarding prevention and management of diarrhea among mothers of infant in selected urban area. N=50

S. No	Level of practices	Score	f	%	Mean±	SD	Median (IQR)
1.	Satisfactory	16-20	43	86	18.06	2.004	18(2)
2.	Unsatisfactory	0-15	07	14			

**Table 4** The level of practices regarding prevention and management of diarrhea among mothers of infant in selected rural area. N=50

S. No	Level of practices	Score	f	%	Mean±	SD	Median (IQR)
1.	Satisfactory	16-20	36	72	16.86	1.852	17(2)
2.	Unsatisfactory	0-15	14	28			

**Table 5** Compare the level of knowledge regarding prevention and management of diarrhea among mothers of infant in selected urban rural areas . N=100

S. No	Residence	N	Mean±	SD	Median	t- value	df	P-value
1.	Urban	50	18.88	3.147	3.560	5.906	98	.001*
2.	Rural	50	15.32	2.875				

\*significant at 0.05 level

**Table 6** Compare the level of practices regarding prevention and management of diarrhea among mothers of infant in selected urban rural areas . N=100

S. No	Residence	N	Mean±	SD	Median	t- value	df	P-value
1.	Urban	50	18.06	2.004	1.200	3.110	98	.002*
2.	Rural	50	16.86	1.852				

\*significant at 0.05 level

## 4. Discussion:

The finding of study revealed that mothers of infant in urban areas 96% had adequate Knowledge and 4% had an inadequate knowledge regarding prevention and management of diarrhea. The mothers of infant in rural areas 80% had adequate knowledge and 20% had inadequate knowledge regarding prevention and management of diarrhea. The findings are supported by **Rehman Saman, Iqbal Muhammad Javed and RehmanZain (2017)**<sup>10</sup> conducted a comparative study to assess the knowledge and practices regarding prevention and management of diarrhea in mothers of rural and urban areas. The results found that the mothers of infant in urban areas 67% had adequate knowledge and 33% had inadequate knowledge regarding prevention and management of diarrhea. The mothers of infant in rural areas 79% had adequate knowledge and 21% had inadequate knowledge regarding prevention and management of diarrhea.

The finding of study revealed that mothers of infant in urban areas 86% had satisfactory practices and 14% had unsatisfactory practices regarding prevention and management of diarrhea. The mothers of infant in rural areas 72% had satisfactory practices and 28% had unsatisfactory practices regarding prevention and management of diarrhea. The findings are supported by **Fufa W.K., Gebremedhin G.B, Gebregergs G.B and Mokonn T.M (2019)**<sup>11</sup> conducted a comparative cross-sectional study to assess the practices regarding prevention and management of diarrhea among mothers in urban and rural areas in Doba Woreda, Ethiopia. The results found that 55.8% mothers of urban areas and 85.6% mothers of rural areas had satisfactory practices regarding prevention and management of diarrhea

The finding of the study revealed that mean  $\pm$  SD for the level of knowledge were  $18.88 \pm 3.147$  for urban and  $15.32 \pm 2.875$  for rural areas respectively. So, mean and SD were slightly high in urban areas mothers of infant than rural areas mothers of infant. The results were found statistically significant at 0.05 levels. Hence it was concluded that, mothers of infant in urban areas were statistically significant high knowledge than mothers of infant in rural areas. The findings are supported by "**Adeleke A.I and Mhlba T (2017)**<sup>12</sup> there was significant association with the knowledge regarding prevention and management of diarrhea among the mothers in urban and rural areas. Urban mothers significantly higher level of knowledge 77.9% as compare to rural mothers 63.5%."

The finding of the study revealed that mean  $\pm$  SD for the level of practices were  $18.06 \pm 2.004$  for urban and  $16.86 \pm 1.852$  for rural areas respectively. So, mean

and SD were slightly high in urban mothers of infant than rural mothers of infant. The results were found statistically significant at 0.05 level. Hence it was concluded that, mothers of infant urban areas were statistically significant high level of practices than mothers of infant in rural areas. The findings are supported by "**Fufa W.K., Gebremedhin G.B, Gebregergs G.B and Mokonn T.M (2019)**<sup>11</sup> conducted a comparative cross-sectional study to assess the practices regarding prevention and management of diarrhea among mothers in urban and rural areas in Doba Woreda, Ethiopia. The differences were statistically significant between the level of practices regarding prevention and management of diarrhea among mothers in urban and rural areas."

In urban areas the present study findings revealed that result show that there was no significant association with the level of knowledge of mothers of infant with all the socio demographic variables like age of infant (in months), age of mother, sex (of infant), family type, education status of mother, number of children, method of disposal of human excreta in your house. The findings are supported by "**Priyanka Devgun, Amanpreet Kaur and Harpreet Kaur (2018)**<sup>13</sup> conducted a Study of knowledge regarding diarrhea of mothers of under five years of age in urban area of Amritsar, Punjab. In urban area the findings of the study revealed that there was no significant relationship between knowledge of mothers with socio demographic variables like age of mother, sex of infant, family type, education status of mother, number of children." In rural areas the present study findings revealed that So result show that there was no significant association with the level of knowledge of mothers of infant with all the socio demographic variables like age of infant (in months), age of mother, sex (of infant), family type, education status of mother, number of children, method of disposal of human excreta in your house. The findings are supported by "**P Kalpana and AR Bharathi (2021)**<sup>14</sup> conducted a Study to assess the knowledge regarding diarrhea in selected rural area at Trichy. In rural areas the findings of the study revealed that there was no significant relationship between knowledge of mothers age, type of family, education status and number of children."

In urban areas the present study findings revealed that So result show that there was no significant association with the level of practices of mothers of infant with all the socio demographic variables like age of mother, sex (of infant), family type, education status of mother, number of children, method of disposal of human excreta in your house but in urban areas only there were significant association with the level of practices with their age of infant (in months). The findings are supported by "**Kiran Kumar**

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**Rokkappanavar, S.R. Nigudgi and Shreeshail Ghooli (2016)**<sup>15</sup> Conducted a Study to assess the knowledge and practices of mothers of under five year children regarding management of diarrhea in urban field practice area at Karnataka. In urban areas only there was strong relationship with educational status of the mothers and appropriate practices regarding prevention and management of diarrhea and no relationship with number of children and type of family.”

In rural areas the present study findings revealed that there was no significant association with the level of practices of mothers of infant with all the selected socio demographic variables like age of infant (in months), age of mother, sex (of infant), family type, education status of mother, number of children, method of disposal of human excreta in your house. The findings are contradicted by “**Archange Ndayisaba (2019)**<sup>16</sup> Conducted a Study to assess the knowledge and practices of mothers of under five-year children regarding management of diarrhea in rural areas Ruli health center in district Gakenke. There was strong significant relationship between practices regarding prevention and management of diarrhea.”

## 5. Conclusion

In present study, A comparative study to assess the knowledge and practices regarding prevention and management of diarrhea among mothers of infant in selected urban and rural areas of district Faridkot, Punjab. From the study's findings, it was determined that urban mothers' knowledge and practices were higher than those of mothers of infants living in rural areas.

## Recommendations

Based on the results of the study, following recommendations are made;

1. It is possible to replicate the research on a large sample to verify and generalize its results.
2. The research may be undertaken in a variety of community health settings.
3. In order to compare the knowledge and habits of mothers of infants with relation to the prevention and treatment of diarrhea, comparative research might be done in rural and urban settings.
4. It is possible to undertake quasi-experimental research to assess the impact of a structured education programme on the knowledge and habits of mothers of infants about the prevention and treatment of diarrhea

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