



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2021; 7(3): 336-340
www.allresearchjournal.com
Received: 03-01-2021
Accepted: 06-02-2021

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A study to assess the knowledge on prevention and home management of Diarrhea among the mothers of under-five year children with a view to develop an information booklet in selected village of Panikhaiti, Guwahati, Assam

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Abstract

Despite significant worldwide progression in reducing child deaths over the last decades, diarrhea remains the leading cause of mortality in children under 5 years of age. Therefore, mother's knowledge about diarrhea is critically important.

Objectives: The main objective of this study was to assess the knowledge of the mothers regarding diarrhea, its prevention and home management and to find out the association between knowledge regarding prevention and home-management of Diarrhea with selected demographic variables among mothers of under five children.

Method: Non - experimental, descriptive design was adopted for the study. The sample consisted of 187 mothers of under-five years children residing in the selected villages of Panikhaiti, Guwahati, Assam. The sample was selected by using purposive sampling technique. The tools used for data collection was a set of demographic variables and structured knowledge questionnaire consist of 30 question. Content validity of the tool was ensured by verifying it with experts from the field of pediatric and community health nursing.

Result: The data were analysed and interpreted in terms of the objectives and hypothesis of the study. Descriptive and inferential statistic were used for data analysis: the level of significance was at 0.05% reveals that introduction of diarrhea 6 items had a mean of 3.47 with a standard deviation of 1.37 and mean % of 57.8% sign and symptom has 2 item had a mean of 0.76 with a standard deviation of 0.72 and mean % of 38% complication has 1 items had a mean of 0.36 with a standard deviation of 0.48 and mean % of 36% home –management of 11 items had a mean of 3.87 with a standard deviation of 2.50 and mean % of 35.2% and prevention has 10 items had a mean of 4.57 with a standard deviation of 2.42 and mean % of 45.7%. Based on the level of knowledge out of total 187 mothers 86 (46%) have moderately adequate knowledge, 72 (38.5%) have inadequate knowledge and 29 (15.5%) have adequate knowledge regarding diarrhea, its prevention and home - management. It also revealed that there is a significant association between knowledge of the mother regarding diarrhea with demographic variables such as age of children, type of family, number of children, source of water, education of the head of the family, family monthly's income and socio-economic status of the family.

Conclusion: we conclude that the mother had moderately adequate knowledge about the diarrhea, its prevention and management and there is significant association with knowledge score with their demographic variables hence hypothesis (H_1) is accepted.

Keywords: Assess, knowledge, prevention, management, diarrhea and mothers of under five children

Introduction

Children are the wealth of tomorrow, children under the age of five years are considered as the valuables among total population in India. They are more susceptible to the complication of diarrhea because a smaller amount of fluid loss can leads to dehydration when compared to adult ^[1].

According to WHO "Diarrhea is defined as the passage of three or more loose or liquid stools per day (or more frequent passage than the normal for the individual). Frequent passing of formed stools is not diarrhoea, nor is the passage of loose, "pasty" stools by breastfed babies" ^[2].

Interventions to prevent diarrhoea including safe drinking-water, use of improved sanitation and hand washing with soap can reduce disease risk. Diarrhoea should be treated with oral rehydration solution (ORS), a solution of clean water, sugar and salt. In addition, a 10 - 14 day supplemental treatment course of dispersible 20 mg Zinc tablets shortens diarrhoea duration and improve outcomes [2].

Despite the availability of easily implementable interventions and existence of National Guidelines for management at the community level. Oral rehydration therapy (ORT) with oral rehydration salt (ORS) solution remains the cornerstone of appropriate case management of diarrheal dehydration and is considered the single most effective strategy to prevent diarrheal deaths in children. However, data from United Nations Children's Fund (UNICEF), coverage evaluation survey (CES) and the third National Family Health Survey (NFHS-3) show that ORS usage rates are still unacceptable; while unwarranted anti-diarrheal drugs and injections continue to be prescribed frequently. Moreover, there is lack of knowledge and awareness amongst care providers on how to implement and achieve greater coverage of existing cost-effective interventions [3].

Poor management of diarrhea by mothers in particular areas increased the risk of diarrhea in children. Mothers usually delay seeking medical advice promptly. Most of the diarrhea episodes are treated in homes, and mothers are the key caregiver in children under five years old. They are the one who decide about the nutrition and management of diarrhea in children therefore their knowledge about this common disorder is critically important. The main objective of this study is to identify the knowledge of mothers with children under five years old about diarrhea, its prevention and home management.

Problem statement

"A study to assess the knowlegde on prevention and home management of diarrhea among the mothers of under - five year children with a view to develop an information booklet in selected village of Panikhaiti, Guwahati, Assam".

Objectives of the study

1. To assess the level of knowledge on prevention and home management of diarrhea among the mothers of under - five year children.
2. To find out the association between the knowledge scores on prevention and home management of diarrhea among the mothers of under five children with selected demographic variables such as age of children, age of mothers, type of family, number of children, source of water, education of the head of the family, occupation of the head of family, family monthly's income and socio-economic status of the family.

Methodology

Study approach

Quantitative research approach were used in this study.

Study design

Descriptive research design.

Setting

A study was conducted at selected villages of Panikhaiti,

Guwahati, Assam.

Sample and sample size

187 mothers of under five year children at selected villages of Panikhaiti, Guwahati, Assam.

Population

The population included in the present study are the mothers of under five children.

Sampling method

The sampling method used in the research study are purposive sampling technique.

Variables

Research variables: In this study, it refers to the knowledge of the mothers of under five year children regarding diarrhea, its prevention and home management.

Demographic variables: In the present study, it refers to the age of children, age of mother, type of family, number of children, source of water supply, education of the head of the family, occupation of the head of the family, family monthly income and socio economic status of the family.

Sampling criteria

Inclusion Criteria

1. The mothers of under- five children.
2. The mothers who are residing in selected village of Panikhaiti, Guwahati, Assam.
3. The mother who are willing to participate in the study.
4. The mother who are available at the time of data collection.
5. The mother who know how to read and write.

Exclusion Criteria

Mothers who were mentally and seriously ill and those who had hearing and speaking difficulty were excluded from the study.

Methodology of data collection

Development of the tool

Tool I: Demographic pro forma.

Tool II: Structure knowledge questionnaire regarding knowledge on prevention and home- management of diarrhea.

Description of the tool

Tool I: Demographic pro forma

A structure questionnaire on demographic variables are used to collect the sample characteristic. The characteristic includes are Age of children, Age of mothers, Type of family, Number of children, Source of water supply, Education of the head of the family, Occupation of the head of the family, Family monthly income and Socio economic status of the family.

Tool II: Structure knowledge questionnaire regarding prevention and home- management of diarrhea

It consist structure knowledge questionnaire to assess the knowledge of mothers of under- five children. It includes the multiple choice questions regarding diarrhea, including its sign and symptoms, home - management during diarrhea

and prevention of diarrhea.

Scoring scale consists of one correct option for all multiple questions. There are total of 30 question items and are categories into 6 division. Score "1" is given for the correct response score "0" is given for incorrect response. The score range from minimum of "score 0" and maximum of "score 30".

The knowledge level is arbitrarily divide into 3 categories based on self- administered knowledge questioner and accordingly score were allotted:

- Adequate knowledge 0-10
- Moderately adequate knowledge 11-20
- Inadequate knowledge 21-30

Plan for data collection

After a brief self-introduction and getting the rapport, the investigator give brief details about the nature of the study and consent are obtained from the sample and confidentiality of the responses to be assured.

Results

Findings are organized in the following sections:

Section 1: Assessment of demographic variables of mothers of under-five year children.

Section 2: Aspect wise knowledge score of the mothers of under-five children regarding prevention and home – management of diarrhea

Section 3: Assessment of knowledge regarding prevention and home management of diarrhea among mothers of under-five year children.

Section 4: Association between knowledge regarding prevention and home – management of diarrhea among mothers of under-five year children with selected demographic variables (Age of children, Age of mother, Type of family, Number of children, Source of water supply, Education of the head of the family, Occupation of the head of the family, Family monthly income and Socio economic status of the family).

Section 1:

It consist of demographic variables.

Table 1: Assessment of demographic variables of mothers of under-five year children.

Sl. No	Demographic variable	Frequency	Percentage (%)
1	Age of children (in years)		
	a. 0-1	45	24.1
	b. 2-3	64	34.2
	c. 4-5	78	41.7
2	Age of mother (In years)		
	a.18-22	25	13.4
	b.23-27	63	33.7
	c. 28-32	87	46.5
	d. 32 and above	12	6.4
3	Types of family		
	a. Nuclear Family	117	62.6
	b. Joint family	65	34.7
	c. Extended family	5	2.7
4	Number of children		
	a. 1	77	41.2
	b. 2	92	49.2
	c. 3	18	9.6
	d. More than 3	0	-
5	Source of water supply		
	a. Piped water	32	17.1
	b. Tube well, bore hole	155	82.9
	c. Rain water collection	0	-
	d. If any other, specify	0	-
6	Occupation of the head of the family		
	a. Legislators, senior official & manager	0	-
	b. Professional	18	9.6

The findings of the study showed that majority of the children i.e. 41.7% were in the age group of 4-5 years. Majority of the mothers i.e. 46.5% were in the age group 28-32 years. Majority of the mothers i.e. 62.6% belong to nuclear family. Majority of the mothers i.e. 49.2% were having 2 children. Majority of the mother i.e.82.9% were using tube well water. Majority of the head of the family i.e.

89.9% were working as Elementary occupation. Majority of the head of the family i.e. 51.9% belongs to middle school certificate. Majority of the family i.e. 90.4% were having 3,908- 11,707 income per month. Majority of the mothers i.e. 34.2% belong to upper lower socioeconomic status.

Section 2: Assessment of knowledge regarding prevention and home-management of diarrhea.

Table 2: Aspect wise knowledge score of the mothers of the under-five year children regarding prevention and home-management of diarrhea.

Knowledge aspect							
Sl. No	Aspects	Statements	Max. score	Range Score	Mean	Mean (%)	SD
1	Regarding introduction of diarrhea	6	6	1-6	3.47	57.8	1.37
2	Regarding sign and symptom of diarrhea	2	2	0-2	0.76	38	0.72
3	Regarding complication of diarrhea	1	1	0-1	0.36	36	0.48
4	Regarding home – management of diarrhea	11	11	0-10	3.87	35.2	2.50
5	Regarding prevention of diarrhea	10	10	0-10	4.57	45.7	2.42
6	Combined	30	30	3-30	13.03	43.4	5.61

Table.2 Reveals that regarding introduction of diarrhea 6 items had a mean of 3.47 with a standard deviation of 1.37 and mean % of 57.8%. Regarding sign and symptoms of diarrhea 2 items had a mean of 0.76 with a standard deviation of 0.72 and mean % of 38%. Regarding complication of diarrhea 1 items had a mean of 0.36 with a standard deviation of 0.48 and mean % of 36%. Regarding home- management 11 items had a mean of 3.87 with a standard deviation of 2.50 and mean % of 35.2%. Regarding the prevention of diarrhea 10 items had a mean of 4.57 with a standard deviation of 2.42 and mean % of 45.7%.

moderately adequate knowledge level score, 72 (38.5%) had inadequate knowledge level score and 29 (15.5%) had inadequate knowledge level score regarding diarrhea, its prevention and home- management of diarrhea.

Section 3: Assessment of knowledge score of the mother of under five children.

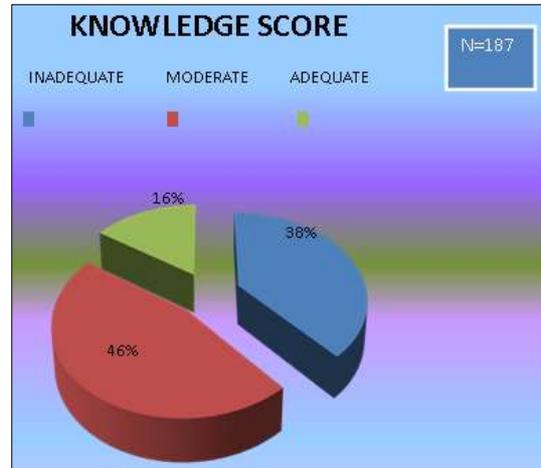


Fig 1: Frequency and percentage distribution of knowledge score of the mother of under-five children regarding diarrhea, its prevention and home- management.

Table 3: Frequency and percentage distribution of knowledge score of the mother of under-five children regarding diarrhea, its prevention and home- management.

Knowledge	Score range	Frequency (f)	Percentage (%)
Inadequate	0-10	72	38.5
Moderately adequate	11-20	86	46
Adequate	21-30	29	15

Table.3 shows that majority of mothers 86 (46%) had

Section 4

Table 4: Association between the level of knowledge regarding prevention and home- management of diarrhea among mothers of under-five year children with the selected demographic variables

Demographic variables	Level of knowledge			Chi square	df	Table value	Inference
	Adequate	Moderate	Inadequate				
1. Age of child (in years)							
0-1	7	28	10	44.1	4	9.49	S*
2-3	9	43	12				
4-5	13	15	50				
18-22	5	9	11				
2. Age of mother (in years)							
23-27	7	27	29	8.7	6	12.59	NS
28-32	13	43	31				
Above 30	4	7	1				
3. Type of family							
Nuclear family	6	61	50	27.5	4	9.49	S*
Joint family	22	24	19				
Extended family	1	1	3				
4. Number of children							
1	15	43	19	40.7	6	12.59	S*
2	11	29	52				
3	3	14	1				
More than 3	0	0	0				
5. Source of water							
Piped water	13	17	2	26.3	6	12.59	S*
Tube well	16	69	70				
Rain water	0	0	0				
others	0	0	0				

6. Occupation of head of family							
Legislator	0	0	0				
Profession	9	6	3				
Technician	0	0	0				
Clerks	0	0	0				
Skill worker	0	0	0				
Skill agriculture	0	1	0	19.33	18	28.87	NS
Craft	0	0	0				
Machinery	0	0	0				
Elementary	20	79	69				
Unemployment	0	0	0				
7. Education of the head of family							
Profession	5	2	0				
Graduate	9	2	0				
Intermediate	1	0	0				
High school	6	5	3				
Middle school	5	63	29	137.2	12	21.03	S*
Primary	3	11	4				
Illiterate	0	3	3				
8. Monthly income							
>78,063	0	0	0				
39,033 – 78,062	0	0	0				
29,200 – 39,032	2	0	0				
19,516- 29,199	4	1	0				
11,707 – 19,515	5	4	2	37.5	12	21.03	S*
3,908 – 11,707	18	81	70				
< 3,907	0	0	0				
9. Socio- economic status							
Upper	0	0	0	27.8	8	15.51	S*
Upper middle	2	16	1				
Lower middle	8	9	28				
Upper lower	12	33	19				
Lower	7	28	24				

S*= significant, NS= not significance at P <0.05

Discussion

The present study was conducted to assess the level of knowledge among the mothers of under-five year children regarding prevention and home management of diarrhea with a view to develop an informational booklet. The finding of the study revealed that out of 187 mothers i.e, 86 (46%) had moderately adequate knowledge level score and there is a significant association between knowledge of the mothers with selected demographic variables such as age of children, type of family, number of children, source of water, education of the head of the family, family monthly income per month and socio-economic status. So the researcher concluded that majority of mothers had moderately adequate knowledge on diarrhea, its prevention and home management.

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