



KNOWLEDGE, ATTITUDE AND PRACTICES OF MOTHERS OF UNDER FIVE CHILDREN REGARDING DIARRHEAL ILLNESS: A STUDY FROM RURAL MAHARASHTRA

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ABSTRACT Diarrhea is the second commonest explanation for morbidity and mortality among children under 5 years old worldwide. Appropriate knowledge regarding signs and symptoms, timely and proper management at household and in health services remains an important intervention for decreasing mortality and morbidity. Thus we conducted a Cross-sectional study with an objective to assess the knowledge, attitude, and practice of mothers of under 5 children regarding the diarrheal illness in rural hospital of Wardha district in a period of May 2019-June 2019, with a target sample size of 100 mothers. In our study, most of the mothers (72%) had good knowledge regarding diarrheal illness, but had a casual attitude and poor practices. A strong association was found between educational status, socioeconomic status and knowledge, attitude, and practices regarding diarrheal illness. However there was no significant association between age group with attitude and practices.

Most of the episodes of diarrhea are treated in homes, and mothers are key care-givers in diarrhea. Therefore the poor attitude of the mothers requires to be addressed by the health system.

KEYWORDS : Attitude, diarrhea, knowledge, mothers, practice, rotavirus vaccination, under -five children

INTRODUCTION –

Diarrhea is the second most common cause of morbidity and mortality among children under 5 years old worldwide, following acute respiratory tract infection¹. It is the third leading cause of childhood mortality in India, and is responsible for 13% of all deaths/year in children under 5 years of age.² On an average, children below 3 years of age in India, experience about 3–5 episodes of diarrhea every year.³

A major determinant of child health is the health and knowledge of the Child's mother.⁴ So, the knowledge, attitude and health practices of the mothers directly affect the health and vitality of the child. Most of the mortalities and morbidities due to diarrhea can be prevented by practicing primary preventive measures such as the use of clean water, hand washing, exclusive breastfeeding, immunization, sanitary disposal of excreta, use of latrines, and good sanitary and hygienic practices.⁵ Secondary measures include early recognition of dehydration due to diarrhea and prompt oral rehydration, increased and continued feeding of energy rich foods in addition to breastfeeding, and zinc therapy.⁶ However, poor socioeconomic status, lack of knowledge among caregivers, and failure to provide therapy when needed are hindering factors in preventing diarrheal deaths.⁷ Health education is an important aspect of primary health care with reference to the pivotal role mothers play in management of diarrhea, a joint statement of WHO/ UNICEF stressed the need to understand their present knowledge, attitude and practices regarding diarrhea.⁸

It is reported that, the incidence of diarrhoeal illness in rural India is 12% and in urban India is 9%. In this context, the present study was taken up to determine the knowledge, attitude, and practice of mothers of under-5 children regarding the diarrheal illness.

OBJECTIVES

- To assess knowledge, attitude, and practices towards acute diarrheal diseases among mothers of under five children.
- To study the association between socio-demographic determinants of mothers of under five children and KAP score.

METHODOLOGY

A Cross-sectional study was conducted in a medical college, Acharya Vinoba Bhave Rural Hospital, Sawangi (Meghe), Wardha – A Rural set up

Study Period: The study was conducted from May 2019-June 2019 (2 months).

Sample Size: The target sample size for this study was estimated at 100 mothers with children between 6 months and 5-year age group.

Study participants: Mothers of under five children when they attended hospital for treatment of their children either as outpatient or inpatient.

Data collection and analysis: All mothers of under five children were interviewed with the help of predesigned and pretested questionnaire in their local language. The questionnaire was prepared as per the study objectives containing the variables like socio demographic data, knowledge, attitude, and practice regarding management and prevention of diarrhea.

The information collected was tabulated and analyzed using frequency, percentage, and chi-square test.

RESULTS-

Table 1: Baseline Demographic Characteristics Of Mothers Of Under-five Children

Age Group(yrs)	No of women	Percentage (%)
Upto 20 yrs	10	10
21-25 yrs	40	40
26-30 yrs	22	22
≥31-49 yrs	28	28
Total	100	100.00
Mean ± SD	30.52 ± 5.61 yrs	
Educational level		
Primary(1-7)	30	30
High School(8-10)	43	43
Higher Secondary(11-12)	22	22
Graduate	5	5
Total	100	100.00
SOCIOECONOMIC STATUS (kuppusswamy classification)		

Class I	2	2
Class II	15	15
Class III	50	50
Class IV	27	27
Class V	6	6
Total	100	100.00

In our study, out of 100 mothers, most of them (40%) were in the age group of 21-25 years and 28% were in the age group of >31-49 years.

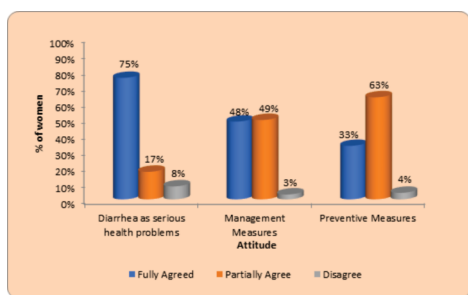
Majority of the women (43%) were educated upto high school and 30% of them were only educated upto primary school.

83% of the mothers (majority) belonged to low socio-economic status and only 17% of them had higher socio-economic status.

Table 2: Answering pattern of ten questions by the mothers regarding knowledge about diarrheal illness

Knowledge	No of women	Percentage(%)
What is diarrhea	86	86
Causes of diarrhea	71	71
Consequence of diarrhea	52	52
Signs of dehydration	41	41
Treatment modalities	46	46
ORS	78	78
Danger Signs	38	38
When to seek medical advice	77	77
Preventive measures	66	66
Rotavirus vaccination	34	34

10 questions were asked from mothers to assess their knowledge as good or poor by using a scoring system. 86% of the mothers had good knowledge about diarrhea, 78% had knowledge about ORS, 77% knew when to seek medical advice and 71% had knowledge about causes of diarrhea.



GRAPH 1: Patterns of attitude about diarrheal illness Among the participants

Attitude towards diarrheal illness was considered as serious or casual by asking three questions. 75% of the mothers fully agreed about diarrhea as serious health problems, but only 48% and 33% of them fully agreed about management measures and preventive measures respectively.

Table 3: Type of practices about diarrheal illness among the participants

Practices	No of women	Percentage
1.) Fluids and feeds during diarrheal illness		
Home made fluids	43	43
ORS	46	46
Continue breastfeeding	72	72
No oral fluids	20	20
Others like medications	36	36
2.) Preventive measures		
Safe drinking water	62	62
Hygienic Practices	47	47
Vaccination	12	12
Nil	12	12
3.) Why no rotavirus vaccination		
No government supply	81	81
Costly	31	31
No need	51	51
Don't know	62	62

Practices of mothers in diarrheal illness were considered as good or poor by asking 3 questions. Only 46% of mothers were using ORS, and 43% used home made fluids. While, most of the mothers (72%) practiced exclusive breast feeding during diarrheal episodes.

62% of the mothers were using safe drinking water but, only few (47%) practiced hygiene as a preventive measure during diarrheal illness. 81% of the mothers denied rotavirus vaccination due to no government supply or their unawareness.

Table 4: Association between age group, education, socioeconomic status, and knowledge, attitude, practices regarding diarrhea in participants

Category	Knowledge		Attitude		Practices		p-value
	Poor (n=28)	Good (n=72)	Casual (n=60)	Serious (n=40)	Poor (n=60)	Good (n=40)	
Age Group(yrs)							
≤25 yrs(n=50)	18	32	43	7	36	14	Knowledge=0.0001,S Attitude=0.06,NS Practice=0.21,NS
>25 yrs(n=50)	10	40	17	33	24	26	
Education Status							
School Education(n=65)	18	47	55	10	50	15	Knowledge=0.0001,S Attitude=0.004,S Practice=0.0031,S
College Education(n=35)	10	25	5	30	10	25	
Socio-economic Status							
Lower(n=83)	21	12	58	25	59	24	Knowledge=0.047,S Attitude=0.002,S Practice=0.0042,S
Higher(n=17)	7	60	2	15	1	16	

It is observed that the mothers, more than 25 years of age were having significantly more knowledge(p value=0.0001) than the mothers of ≤ 25 years. But no association of the age group with their attitude and practices was found.

There was significant association observed between knowledge, attitude, and practice with their educational status and socio-economic status. Only 40% had serious attitude and more had casual attitude in mothers who did only school education.

Also the mothers with low socioeconomic status were observed to have casual attitude(58%) and poor practices(59%)

DISCUSSION-

A strong association was found between educational status, socioeconomic status and knowledge, attitude, and practices regarding diarrheal illness. However there was no significant association between age group with attitude and practices.

Our study showed that majority of mothers (86%) had good knowledge about symptoms of diarrheal illness. In other studies by Rokkappanavar *et al.*³ and Chaudhary *et al.*,⁷ similar results were observed with 80% and 93% of mothers having a fair understanding of diarrheal disease, respectively.

Most of the mothers (71%) had good knowledge regarding the causes of diarrhea in our study. Similar results were observed in other studies by Khalili *et al.*⁵ and Cabatabat ⁷ with 81% and 77% mothers, respectively.

Knowledge regarding the type of diet to be followed at home and ORS(oral rehydration salt) during diarrheal episodes was good in our study. In a study done by Saurabh *et al.*,⁹ the knowledge regarding diet and ORS was poor.

Our study also found a healthy attitude and practice of exclusive breastfeeding for the first 6 months and continued breastfeeding during diarrheal illness by majority of mothers (72%). Similar observations were by Ranjan and Paswan¹⁰ in their study.

The present study identified that most of the mothers were aware of importance ORS use in diarrhea, but even if they had known the importance of ORS in diarrhea management, only half of the participant were practicing the administration of ORS. Some mothers have a practice of giving sugar salt solution, cooked pulses water, and a mixture of rice and lentils but they were unaware about ORS use, parallel results were found in the study done by Rehan *et al.*¹¹

Mothers of low socioeconomic class didn't vaccinate their children

mainly because of poor knowledge, higher cost, and no government supply of vaccine. However, those mothers (34%) with higher education and socioeconomic status had vaccinated their children with rotavirus vaccine.

CONCLUSIONS

Most of the women had a good knowledge regarding diarrheal illness and ORS but failed to have a serious attitude and practices to avoid it. Being a rural area, the main reason observed among the mothers was lack of hygiene, sanitation practices, safe drinking water, knowledge about the home made fluids, ors, lack of transportation to good health facilities and low source of income.

Thus, maternal education was crucial to be used as an effective tool to promote awareness regarding preventive and management measures in diarrheal illness in the children of under five years of age.

Also, the Inclusion of rotavirus vaccine in national immunization schedule can help in improving its coverage.

RECOMMENDATIONS-

Most of the episodes of diarrhea are treated in homes, and mothers are key care-givers in diarrhea. Therefore the poor attitude of the mothers requires to be addressed by the health system by providing demonstration of homemade ORS and other fluids preparation, creating awareness on hygiene and sanitation practices, providing safe drinking water source, good transportation facilities in remote areas.

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