Original Research Article

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Study to assess the knowledge and health seeking behaviour of mothers of under 5 children in the catchment area of G.M.C., Bhopal

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ABSTRACT

Background: Under 5 mortality rate is considered as the best indicator of social development and well being. Low U5MR indicates better social development as children are most vulnerable during the first 5 years. Almost 1/3rd die of infectious cause, nearly all of which are preventable.

Methods: A cross- sectional interventional study was done on 105 mothers with children under the age group of 5 years. Knowledge and practice about diarrhoea, pneumonia and immunization was assessed first followed by and educational intervention which was later followed by post intervention interview of the same mothers after a gap of 1 month. The increment in the knowledge was then assessed.

Results: 41.9% belonged to the age group of 20-25 years. 94.11% of the mothers knew what diarrhoea is and only 47.61% could tell minimum 3 signs of dehydration. 32.38% could tell the specific signs of pneumonia. 90.47% mothers knew that immunisation prevents children from diseases. The overall knowledge scores improved significantly (p<0.0001) after a gap one month.

Conclusions: The knowledge appeared to improve significantly after an education intervention. The immunization coverage was found to be adequate.

Keywords: Under 5 children, Diarrhoea, Immunization

INTRODUCTION

Under 5 mortality rate is considered as the best indicator of social development and wellbeing. Therefore, it is important that the U5MR remains on the lower side. Mothers should be well equipped with the knowledge of a healthy living in order to increase greater utilization of resources, promotion of healthy lifestyle, and greater adoption of healthy practices. India contributes to 25% Under 5 deaths occurring worldwide every year.¹

Almost 1/3rd die of infectious cause, nearly all of which are preventable. According to WHO (2015), the most common cause of mortality are pneumonia- 13% and

diarrhoea— 9%. According to NHFS-4 (MP fact sheet) Prevalence of diarrhoea in the last 2 weeks - 9.5% and Prevalence of symptoms of (ARI) -2.1%. Large number of maternal and child deaths are attributable to three delays- the delay in deciding to seek care, the delay in reaching the appropriate health facility and the delay in receiving quality care once inside the institution.

The differences in the health related knowledge and practices stems out of poverty leading to illiteracy, low socioeconomic background. There are certain myths and taboos surrounding the immunization of the children and many a times parents fall for these traps. Therefore a study was conducted to explore and assess the knowledge

and practices of mothers of under 5 children in context of health seeking behaviour as mothers are usually the sole caretakers and the burden of responsibility falls on them.

METHODS

The study was conducted in Fatehgarh, field practice area of Department of Community Medicine, Gandhi medical college, Bhopal, over a period of three months from October 2017 to December 2017. A list of household was prepared and 105 houses were selected by purposive sampling. The teams did a house to house survey to find out the mothers who have children under the age group of 5 years and has suffered from diarrhoea or pneumonia at least once in the past 1 one year. All the mothers with such history were included in the study. A team of two interviewers interviewed one mother at a time on a predesigned pretested questionnaire and assessed the knowledge and practice of mothers in context of

diarrhoea, pneumonia and immunization. After conducting the interviews, an educational intervention of the interviewed mothers was done with the help of demonstration and power point presentations followed by post intervention interview of the same mothers after a gap of one month. Thereafter, the increment in the knowledge was observed. The data was analysed using Epi info 7 software.

RESULTS

105 mothers of Under 5 children participated in the study. Majority of the mothers i.e. 41.9% belonged to the age group of 20 - 25 years. 35.23% of the mothers belonged to middle socioeconomic status according to modified B.G. Prasad scale. The monthly expenditure on health is Rs. ≤500 in 62.85% of the households. As far as treatment seeking behaviour is concerned, 82.85% of the mothers believed in going to a doctor (Table 1).

Table1: Socio demographic characteristics of mothers of study population.

S. No.	Variables		Frequency (n=105)	Percentage (%)
1.	A	20-25	44	41.9
	Age group	26- 30	37	35.2
	(in years)	>30	24	22.85
		Illiterate	15	14.28
		Primary	16	15.23
2.	Education status	Secondary	50	47.61
		Higher secondary	13	12.38
		Graduate	11	10.47
3.	Religion	Hindus	51	48.57
		Muslim	49	46.66
4.	On annoting all status	Working	9	08.57
	Occupational status	Housewife	91	86.66
5.		Upper class	09	08.57
	Socio economic status	Upper middle class	05	04.76
		Middle class	37	35.23
		Lower middle class	32	30.47
		Lower class	17	16.19
		≤500	66	62.85
6.	Monthly expenditure on health	500-≤1000	13	12.38
		>1000	26	24.76
7	Health cooking behaviour	Appropriate care	87	82.85
7.	Health seeking behaviour	No appropriate care	18	17.14

Table 2: Treatment seeking behaviour of mother not seeking doctor for treatment.

S. No.	Treatment seeking behaviour	Frequency (n=18)	Percentage (%)
1.	Home treatment with Ayurvedic remedies	7	38.8
2.	Self treatment	8	44.4
3.	Waited for the illness to subside	2	1.90
4.	Healer	1	0.9

94.11% of the mothers knew what diarrhoea is while only 47.61% could tell minimum 3 signs of dehydration (dry tongue, sunken eye etc.) 87.61% were aware about the

ORS solution whereas only 78.09% could correctly tell the method of preparation of ORS. The shelf life of prepared ORS solution is 24 hours. Only 67.61% of the

mothers knew the shelf life of ORS solution. Hand washing is the best preventive practice in case of diarrhoeal and associated infections and majority of the females i.e. 88.57% knew the correct way to wash hands is with medicated soap and water. The study was done in winter months and hence knowledge about ARI/ Pneumonia was also assessed. 92.38% of the mothers

knew what fever is and only 67.61% would seek treatment when the child has fever rest 32.38% believed in self-treatment at home. Only half of the participants had heard about pneumonia (through doctors or in newspaper) while only 32.38% could tell the specific signs of pneumonia (chest in drawing, fast breathing) (Table 3).

Table 3: Knowledge of mothers regarding diarrhoea, pneumonia and immunization.

S.No.	Variables	Frequency (n=105)	Percentage (%)	
	Knowledge regarding Diarrhoea			
1.	Definition of diarrhoea	96	94.11	
2.	Signs of dehydration (minimum 3)	50	47.61	
3.	Awareness about ORS solution	92	87.61	
4.	Correct preparation of ORS solution	82	78.09	
5.	Shelf life of ORS solution	71	67.61	
6.	Correct way to wash hands	93	88.57	
	Knowledge regarding Pneumonia			
1.	Knowledge about fever (high temperature)	97	92.38	
2.	Seeking care in fever	71	67.61	
3.	Self treatment at home	34	32.38	
4.	Ever heard of pneumonia	50	47.61	
5.	Specific signs of pneumonia	34	32.38	
	Knowledge regarding immunization			
1.	To prevent children from diseases	95	90.47	
2.	Fever after few vaccinations	62	59.04	
3.	Contraindications to few vaccines	42	40	
4.	First vaccine given at birth	88	83.80	

Table 4: Practices of mothers regarding diarrhoea, pneumonia and immunization.

S.No.	Variables		Frequency (n=105)	Percentage (%)			
	Diarrhoea and pneumonia						
1.	Use O.R.S. in	Yes	84	80			
	diarrhoeal illness	No	21	20			
	Hand washing practice	Before eating	76	72.38			
		After eating	55	52.38			
2.		After coming home from outside	41	39.04			
		After going to toilet	77	73.33			
	Frequency of hand washing	Once	29	27.61			
3.		Twice	18	17.14			
3.		Thrice	25	23.80			
		Four times	33	31.42			
	Immunization						
1.	Immunization status of	Completed as per age	96	91.42			
	the children	Incomplete as per age	9	08.57			
2.	Immunization card	Present	89	84.76			
4.	IIIIIIuiiizatioii caid	absent	16	15.23			

The assessment of the participants about knowledge on immunization is fairly good with 90.47% mothers knowing that immunisation is given to children to prevent children from diseases. 59.04% of them knew that fever is a side effect of some of the vaccinations. 40% of the

mothers were aware that diarrheal or respiratory illness is a contraindication at the time of vaccinations. While 83.80% of the young mothers were aware that first vaccination is administered at birth (Table 3).

As far as health related practices of the mother are concerned, 80% of the mothers use ORS in diarrhoeal illness and only 31.42% of the mothers use to wash hands four times including one before cooking, after using washroom, before feeding the child and after coming from outside. 91.42% of the children were found to be immunized as per age whole only 84.76% of the mothers had immunization card of the child with them (Table 4).

The total mean score post intervention came out to be 90.7% and the percentage improvement was 18.7%. The overall knowledge scores improved significantly (p<0.0001) after a gap one month (Table 5).

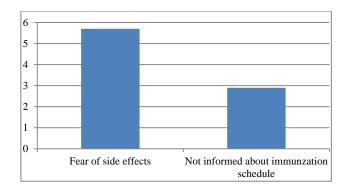


Figure 1: Reasons for incomplete immunization of the children.

Table 5: Percentage improvement in the mean score of the mothers of study population post intervention.

	Variable	Pre intervention (n=105)		Post intervention (105)		0/	
S.No		Mean score N (%)	SD	Mean score N (%)	SD	% Improvement	P value
1.	Diarrhoea preparation (6)	4.79 (79.8)	1.25	5.48 (91.3)	0.73	11.5	< 0.0001
2.	ARI/pneumonia (4)	2.49 (62.2)	0.78	3.52 (88)	0.62	25.8	< 0.0001
3.	Immunisation (4)	2.81 (70.2)	0.94	3.70 (92.5)	0.49	22.3	< 0.0001
	Total mean score	18.6 (72)		12.7 (90.7)		18.7	

DISCUSSION

In the present study, 47.61% female completed school till secondary, this is in conformity with the study conducted by Datta et al in which 43% of the females completed school till secondary standard.⁴ The monthly expenditure on health is ≤500 Rs in 62.85% of the study participants which equates with the socioeconomic status of the participants as majority of them i.e. 35.23% belonged to middle socioeconomic status and 30.47% belonged to low socioeconomic status and most of the income is spent on rent and buying groceries for the house.

In a study conducted by Datta et al only 1.3% mothers were able to answer the signs of dehydrations whereas in a study conducted by MacDonald et al in Indonesia, 38% of them others could identify then signs of dehydration which is similar to the present study in which 47.61%, mothers could answer this question with confidence.^{4,5} In the present study 87.61% mothers were aware about the ORS solution and only 78.09% could correctly tell about the method of preparation of ORS which is similar to the studies done by Datta et al and Bhatia et al where the awareness about ORS solution among mothers came out to be 90.6% and 86.7% respectively. 4,6 It was heartening to know that 88.57% of the mothers knew the correct way to wash hands in contrast to the works done earlier where only half of the participants were aware of this knowledge. Only 80% mothers were practising the use of ORS in diarrhoea which highlights a better condition if compared to the work done by Datta et al in Maharshtra where only 60% mothers were using ORS in diarrhoea management.

97.38% mothers were aware about fever which should have been answered by all the participants taking into account that fever is one of the most common complaints in a child. With the advent of government policies and programmes, establishment of anganwadis and PHCs, it is expected that people will seek care are by a physicians if their child is ill but in the present study only 67.61% of the participants believed in visiting a doctor for any complain and rest practised treatment at home which is unfortunate if compared to the work of Bham et al in Pakistan where 89% of the mothers sought care by a medical practitioner in case of any childhood illness. In the present study about half of the participants were not aware of pneumonia. 32.38% of the mothers knew about the specific signs of pneumonia which is on similar lines to the study conducted by Ferdous et al in Bangladesh where 29% of mothers had prior understanding of signs and symptoms of pneumonia.

90.47% of the mothers were aware that vaccination prevents children from diseases which is in consistent to the finding by Siddiqui et al in Maharashtra where 96.9% mothers were aware of this knowledge and less compared to the work done by Mereena et al where 100% participants know that vaccination prevents diseases. 9,10 59.04% of the mothers were aware that vaccination does have fewer side effects, fever being the commonest answer which is similar to the studies done by Siddiqui et al in Maharashtra where 67% mothers has knowledge about some adverse reactions after vaccination, fever being one of the commonest. 9 Siddiqui et al in Maharashtra found that 78% mothers had the knowledge about contraindications of immunization, fever; allergy to

name a few which highlights the pitiful state of affairs in the present study where only 40% mothers were aware of the contraindication following immunization taking into consideration that knowledge about contraindication of immunization is important so that the vaccine could work to its full potential which could be hampered if the child has diarrhoea or any anaphylactic reaction after a previous dose. Majority of the mothers that is 83.80% did know that the first vaccine is administered at birth which is almost same as the work done by Ahmed et al where 86% parent knew the timing of the first dose in vaccination schedule. 11 It is heartening to not that 91.42% children under the age five were immunised as per age and 84.76% families had properly kept the immunisation card which is in stark contrast to the study done by Angadi et al in which only 34.8% children were fully immunized and 69% families had immunization card with them. 12 Upon further investigation, it was found that out of 8.57% children who were not immunised as per age, 5.7% stated the fear of side effects as the main reason while only 2.9% were not informed about the immunization schedule which contradicts with the study done by Angadi et al in which 97% families reported lack of knowledge regarding schedule and only 13% reported the fear of side effects as the reasons for missing immunisation on time. 12

CONCLUSION

The knowledge appeared to improve significantly after an education intervention which suggests that regular health educational programmes for mothers should be held especially in urban slum areas involving health workers. The immunization coverage was found to be adequate which can be because of urban health centre nearby which regularly disseminates the information about immunization and its importance. During our intervention, we learned about the common issues people face in govt. setups like long waiting time, lack of attention during treatment, impolite behaviour from the staff and unavailability of medicines. These are some of the major findings which can be worked upon and the belief of people on government setup could be restored.

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