

Original Article

Knowledge, Symptom Management and Health Seeking Behaviour on Childhood Illness among Mothers of Under -Five Children

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Abstract

Introduction: Under-five age is a crucial and transitional period when a child is struggling to come into equilibrium with its ecology. According to the World Health organization, over four billion acute cases of childhood diseases occur every year, primarily among children in developing countries. Two billion children die annually from childhood illness.

Objectives: The objective of the study was to assess knowledge of mothers on childhood illness, symptom management followed by mothers during the illness of the child and health seeking behaviour on childhood illness.

Methods: A cross-sectional study was carried out among 140 mothers of under-five children in selected villages of Udupi District. Systematic sampling was done to select the mothers under the study. Knowledge, symptom management and health seeking behaviour questionnaire was used for data collection. Then the data were analyzed using SPSS version 16.0.

Results: The present study revealed that most of the mothers had average knowledge regarding childhood illness. It was found that the mean \pm SD and knowledge score for fever 5.17 (\pm 1.42), diarrhoea 4.20 (\pm 1.55), vomiting 2.92 (\pm 1.48), URTI 2.32 (\pm 1.23), malnutrition 3.00 (\pm 1.45), jaundice 3.35 (\pm 1.36), convulsion 2.50 (\pm 1.22), pneumonia 4.25 (\pm 1.44) were respectively. Majority of the under-five children suffered from fever 98 (70%), vomiting 20 (20%), URTI 23 (16.4%), diarrhea 20 (14.3%). As per the study findings 85 (81%) of the children had suffered from illness for about 1-5 days. Most 77 (73.4%) of the mothers reported major barrier for not using health facility is because no good facilities and there was significant association between knowledge score and mother's education, working status, mother's occupation and working hours.

Conclusion: This study concluded that the mothers had poor knowledge on childhood illness. The findings highlight that, the nurses and health care providers can play a significant role to educate the mothers regarding importance of childhood illness.

Keywords: Knowledge, Symptom management, Health seeking behaviour, Mothers, Under-five, Children

Introduction

Globally, despite a significant progress has been made in reducing mortality in children under-five years of age, about 6.9 million children of under-five years died in 2011. (WHO, 2012). A better understanding of child health epidemiology

could contribute to more effective approaches to saving children lives. (Srivastava et. al 2012). Improving families' care seeking behaviour could contribute significantly to reduce the child mortality in developing countries. (Black R et. al, 2013)

The world health organization estimates that seeking prompt and appropriate care could reduce child deaths due to acute respiratory infections by 20% (WHO, 2014). Health seeking behaviour relates with health facilities and other sources of health care and also ability of individuals to seek medical treatment.

Integrated management of neonatal and childhood illnesses incorporates the integrated approach to manage these illnesses and is concentrating on health care practices of the community to reduce child mortality. (Sarkar et al, 2013). Early recognition and prompt treatment of these diseases are life saving. However within a given social setting and a given availability of health services, and individual's health seeking behaviour may be determined by factors such as distance, availability, affordability and appropriateness and adequacy of services as perceived by the users. (Goswami, 2010).

Under-five age is a crucial and transitional period when the child is struggling to come into equilibrium with its ecology (IMNCI 2015). A child deprived of health care during these most impressionable years, is deprived of the opportunity of growing into a normal human being, and the damage done in first few years could be irreversible. (Khalid, 2014).

According to National Family Health Survey-IV in Karnataka, 1.2% and 4.5% of mothers of children under the age of five years reported that their children suffered from acute respiratory infections and diarrhoea respectively. And only 76.9% of ARI children and 69.7% of Diarrhoea children were taken to a health facility or provider.

Aim of the study

The aim of the study was to assess the knowledge, symptom management and health seeking behaviour among mothers of under-five children. The findings could help health sector officials in planning to work towards improving mother's knowledge and families' care seeking behaviour which in turn could contribute significantly in reducing child mortality.

Objectives

- assess the knowledge on childhood illness among mothers of under-five children by using structured knowledge questionnaire

- determine the symptom management on childhood illness by mothers of under-five children by using structured symptom management tool
- identify the health seeking behaviour on childhood illness by mothers of under-five children by using semi-structured questionnaire
- find the association between the knowledge of mothers on childhood illness and the selected demographic variables

Hypotheses

H1: There will be a significant association between knowledge of mothers on childhood illness and selected variables.

Materials and methods

This cross-sectional study was carried out in the villages of Udupi District from December 2017-January 2018. The population for the study is consisted of mothers of under-five children. The villages were selected through simple random sampling and systematic sampling was carried out to select the mothers from the villages. Total of 140 mothers were selected in the study. The mothers were contacted through anganawadi of selected villages. Researcher explained the mothers regarding the study. Mother those who were willing to participate in the study were included. Informed consent was taken and the data collection tools were administered.

Collection of data: The data was collected in the month of January and February 2018 after approval from Institutional Research Committee. Demographic proforma, knowledge questionnaire, symptom management and health seeking behaviour tool was administered to the mothers and asked to fill the questionnaire.

Data collection tools

Demographic Proforma: This tool was prepared by the investigator to determine the socio-demographic characteristics of the mothers and child. This form consists of 8 questions related to age of mother and child, number of children, income, birth order of the child, employment status, work shift, received health related awareness and any health members in the family.

Knowledge questionnaire: The scale was prepared by the researcher and it consisted of 56 knowledge questions on childhood illness i.e

Fever, vomiting, diarrhea, malnutrition, upper respiratory tract infection, pneumonia, jaundice and convulsion.

Symptom management: The tool was prepared by the researcher and it consisted of 12 items on symptom management done by mothers of under-five children during the illness of the child (i.e. Fever, diarrhea, vomiting, URTI, malnutrition, jaundice and pneumonia).

Health seeking behaviour: The form was prepared by the investigator which consisted of 32 questions on health seeking behaviour followed by mothers of under-five children during child's illness. The content validity of the tools was established. Total time taken was 45 minutes to complete the questionnaires.

Variables of study

- **Study variables:** knowledge, symptom management & health seeking behaviour
- **Demographic variables:** age of mother and child, area of living, parent's education and occupation, type of family, birth order of child, number of children, mass media exposure, health care availability, distance of health facility, social support.

Analysis of data: Data were analyzed using SPSS version 16.0 and descriptive (frequency, mean and standard deviation) and analytical (chi square) statistical tests were used.

Data were subjected to statistical analysis using frequency, mean and standard deviation, p-value <0.05 was accepted as significance

Ethical principles of the study

Prior to the initiation of the study written permission was taken from all the Panchayath development officers of the villages where the study was conducted. Ethical permission from the Institutional Research Committee was obtained. After explaining the purpose and duration of the study the informed consent from the mothers was taken.

Results

The study findings revealed that most of the mothers 71 (50.7%) were in the age group of 30-39 years and the 34 (24.3%) children were in the age group of four years, among them 78 (55.7%) of the under children were females. Study show that 64 (45.7%) father's education was secondary and 68 (48.6%) mother's education was

secondary. Result also show that 123 (87.9%) mothers were housewives and 104 (74.3%) father's occupation was non-professional. Most of the caregivers 76 (54.3%) reported income was between 5000-10000 rupees. Study also show that 117 (83.6%) mothers received health related awareness for the child. Majority of 127 (90.7%) mothers reveal that they had no any health professional in their family.

The present study revealed that most of the mothers had average knowledge regarding childhood illness. It was found that the mean \pm SD and knowledge score for fever 5.17 (\pm 1.42), diarrhea 4.20 (\pm 1.55), vomiting 2.92 (\pm 1.48), URTI 2.32 (\pm 1.23), malnutrition 3.00 (\pm 1.45), jaundice 3.35 (\pm 1.36), convulsion 2.50 (\pm 1.22), pneumonia 4.25(\pm 1.44) were respectively. Majority of the under-five children suffered from fever 98 (70%), vomiting 20 (20%), URTI 23(16.4%), diarrhea 20 (14.3%).

Majority 98 (70%) children suffered from fever for 4 days 88 (89.8%) and the symptoms identified in the child was high temperature 91 (93%) and frequency of illness was once 51 (52%) and home management was done by giving tepid sponging 72 (73.5%). Majority 20 (71.4%) of children suffered from vomiting for 1-2 days and the symptom identified in the child was weakness and abdomen pain 19 (67.9%) and the illness suffered by the child was for 2-3 times 12 (42.9%) and the 23 (82.2%) of the mothers treated their child by giving medications as home management which was advised for the older child during the illness. Majority 16 (69.6%) of children suffered upper respiratory tract infection for 1-3 days, major symptom identified was cough 15 (65.3%), frequency of illness was for 1-3 days 13 (56.6%), home management for upper respiratory tract infection was done by giving warm water 19 (82.7%). Majority 15 (75%) under-five children suffered from diarrhoea for 1-2 days, major symptom identified was loose stools 12 (60%), and frequency of illness was once 15 (75%), home management 14 (70%) for diarrhoea was done by giving oral rehydration solution.

It was found that there was a statistically significant association between knowledge regarding childhood illness and mother's education ($\chi^2=16.110$, $p<0.05$), working status ($\chi^2=11.449$, $p<0.05$), occupation ($\chi^2=18.529$, $p<0.05$), working hours ($\chi^2=17.963$, $p<0.05$).

Table 1: Description of sample characteristics (N=140)		
Sample characteristics	Frequency (f)	Percentage (%)
Age of mother in years		
20-29	63	45
30-39	71	50
40-49	6	5
Age of child in years		
1	19	13.6
2	31	22.1
3	33	23.6
4	34	24.3
5	23	16.4
Gender of the child		
Male	62	44.3
Female	78	55.7
Mother's education		
Primary	40	28.6
Secondary	68	48.6
Graduate	26	18.6
Post-graduate	6	4.2
Occupation of the mother		
Professional	15	10.7
Non-professional	125	89.3
Working hours of the mother (n=17)		
1-4	1	0.7
5-8	15	10.7
Monthly household income in rupees		
5000-10000	76	54.3
>10000-15000	36	25.7
>15000	28	20
Health facility near home		
Yes	114	81.4
No	26	18.6
Received health related awareness for children		
Yes	117	83.6
No	23	16.4
Health professional in the family		
Yes	13	9.3
No	127	90.7

Fig 1: Knowledge of under-five mothers on childhood illness (N=140)

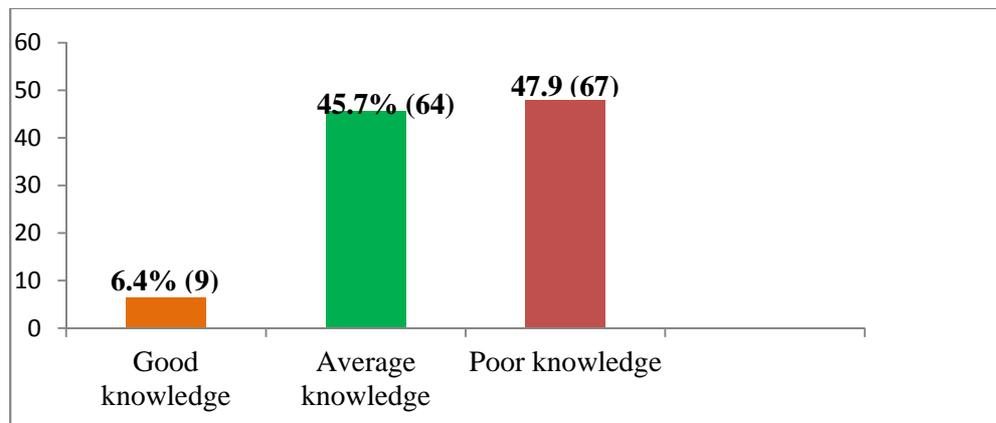


Table 2: Mean, standard deviation and mean percentage of the area wise knowledge on childhood illness (N=140)

Area	Maximum possible score (7)	Mean	Standard deviation (SD)	Mean percentage
Fever	7	5.17	1.42	73.8
Diarrhea	7	4.20	1.55	60
Vomiting	7	2.92	1.48	41.7
URTI	7	2.32	1.23	38.6
Malnutrition	7	3.00	1.45	42.8
Jaundice	7	3.35	1.36	47.8
Convulsion	7	2.50	1.22	35.7
Pneumonia	7	4.25	1.44	60.7

Table 3: Illness suffered by under-five children in the past one year (N=105)

SI No.	Symptom	Frequency (f)	Percentage (%)
1	Fever	13	12.4
2	Fever and URTI	27	25.7
3	Vomiting	28	26.7
4	URTI	10	9.6
5	Diarrhea	20	19
6	Jaundice	4	3.8
7	Pneumonia	2	1.9
8	Malnutrition	1	0.9
9	Convulsion	0	0

Table 4: Illness suffered by under-five children in the past one year (N=105)		
Sample characteristics	Frequency (f)	Percentage (%)
Days of illness started		
15 days ago	55	52.3
One month ago	26	24.9
Two month ago	11	10.5
Four month ago	1	0.9
Six month ago	12	11.4
Severity of the illness		
Mild	48	45.7
Moderate	55	52.4
Severe	2	1.9
Treatment was taken from		
Public hospital	6	5.7
Primary health centre	14	13.4
Private clinic	84	80
Dispensary	1	0.9
Decision on child's treatment taken by		
Mother	50	47.7
Father	7	6.6
Both mother and father	48	45.7
Barriers for not using health facility		
No good facilities	77	73.4
No advanced care	2	1.9
No qualified doctors	26	24.7
Health services can be attracted by		
Improve cleanliness of clinic	15	14.2
Providing good facilities	33	31.1
Health education on child's health	49	47
Visit of health workers to home	3	2.9
Reduction in consultation fees	5	4.8

Discussion

The present study revealed that majority 64 (45.7%) of the mothers had average knowledge and 67 (47.9%) had poor knowledge and 9 (6.4%) had good knowledge regarding childhood illness. It was found that the mean \pm SD and knowledge score for fever 5.17 (\pm 1.42), diarrhoea 4.20 (\pm 1.55), vomiting 2.92 (\pm 1.48), URTI 2.32 (\pm 1.23), malnutrition 3.00 (\pm 1.45), jaundice 3.35 (\pm 1.36), convulsion 2.50 (\pm 1.22), pneumonia 4.25(\pm 1.44) were respectively. Majority of the under-five children suffered from fever 98 (70%), vomiting 20 (20%), URTI 23(16.4%), diarrhea 20 (14.3%). Similar studies were conducted among mothers of under-five children to explore mother's knowledge and practices on managing minor illness, reported that mothers have average knowledge on childhood illness and only 20-25% have good knowledge on childhood illness (Abu-Baker & Garaibeh et.al 2012; Ayed 2010; Chukwuocha. U & Nwakwuo.G et.al 2014; Bham 2016). Most of the mothers of under-five children had practiced tepid sponging 72 (73.5%), removing extra clothing 10 (10.2%) and switching on fan 14 (14.3%) when their child was suffering from fever. Studies have reported that common action taken by mothers and caregivers in the management of febrile illness includes administration of home drug (32%), tepid sponging (4%), striping the baby naked (16%), and took child to hospital (48%) (Maji & Ray 2014; Marimuthu & Meitei 2013; Mihrete & Alemie 2014). In the present study the management of upper respiratory tract infection by mothers of under-five children was done by giving warm water 19 (82.7%), steam inhalation 3 (13%) and herbal medicine 1 (4.3%). Previous Studies had reported that treatment for acute respiratory infection was done by consulting medical practitioner for treatment and in home steam inhalation and warm water was frequently used. (Sarkar & Sivarathinaswamy et.al 2013; Ukey & Chitre et.al 2012). As per the study 56.2% had suffered from illness for about 1-3 days and the mothers had taken the child for treatment from private clinic 68.8% and the 70.9% child were taken for treatment on the same day of illness. Mothers reported that they had taken the child for particular clinic because of proximity 47.9%. It is observed that 35.5% decision on child's illness is done by the mother 35.5% and it was revealed that 36 (75%) were not referred to hospitals because of no advanced

care in the hospital. According to the studies conducted in the past the prevalence of most common childhood illness was diarrhoea (11.3%), fever (10%) and acute respiratory infection (6.3%). Eighty (72.7%) mothers sought treatment from health care facilities for sick children. The main reason for not seeking treatment from health care facilities as reported by mothers were, (53%) illness was not severe, (26.7%) lack of money and (13.3%) did not see any benefit for childhood illness. (Baklava 2012; Shah & Ramanjuttu 2013; Dongre & Deshmukh 2012; Venkatesh & Bansal 2011).

Limitations

- The data was collected from only the samples present and willing to participate in the study.
- The study was limited to selected villages only.
- Information regarding symptom management and health seeking behaviour was collected as expressed by the mothers and it was not observed.

Conclusion

The knowledge of mothers regarding childhood illness in the study is average. In this study mothers had adopted various home care practices in illnesses of their children. Healthy practices adopted by the mother can raise the healthful living condition therefore lessens the mortality and morbidity of under-five year children.

References

- Abu-Baker. N & Garaibeh. H et. al (2012). Mothers knowledge and practices of managing minor illnesses of children under five years. *Journal of Research in Nursing*. 7: 349-354.
- Ayed I. (2010) Mothers knowledge of child health matters. *Journal of family and community medicine*; 1: 22-28.
- Awoke W. Prevalence of childhood illness and mothers'/'caregivers' care seeking behaviour in Bahir, Dar, Ethiopia: A descriptive community based cross sectional study. *Open J Prev Med*. 2013; 3(2):155-9.
- Baklava. D (2012). Epidemiological Study of Childhood Infections in Under-five Children in Urban ICDS Block.
- Black R. & Morris et al. (2013) Child survival-where and why are 10 million children dying every year. *Lancet*. 361:2226-34
- Bham. S & Saeed. F (2016) Knowledge, attitude and practice of mothers on acute respiratory infection in children under-five years. *Pakistan journal of medical sciences*. 6: 1557-1561.

- Chukwuocha. U & Nwakwuo.G et.al (2014) prevalent home management techniques and outcome among mothers of febrile children in Eastern Nigeria. *Research gate*. 14; 392-394.
- Dongre. A & Deshmukh. P (2012). Health expenditure and care seeking on acute child morbidities in Peri-urban Wardha: A prospective study. *Indian Journal of Pediatrics*.77:503-507.
- Goswami M. & Kedia G. (2010) Socio demographic and morbidity profile of slum areas in Ahmedabad, India. *National J Community Med*.12:10-17.
- Government of India, Ministry of Health and Family Welfare. (2015) Integrated Management of Neonatal and Childhood illness: Training modules for medical officers. New Delhi World Health Organization (2012) Millennium Development Goals (MDGs).
<http://www.who.int/mediacentre/factsheets/fs290/en/index.html>
- Khalid. M & Kumari. R et. al (2014) Managing childhood illness among children from below poverty line families of Lucknow district, North India. *Int J Adv Res*. 2:627-34.
- Maji. S & Ray. S (2014) A Longitudinal Study of Morbidity Pattern and Nutritional status of under-Five Children in a Slum Community of Kolkata. *IOSR Journal of Dental and Medical Sciences*.13:1-5.
- Marimuthu. P & Meitei. M (2013) General Morbidity Prevalence in the Delhi Slums. *Indian J Community Med*. 34:338-42.
- Mihrete. S & Alemie. A (2014). Determinants of childhood diarrhea among under-five children in Benishangul Gumuz Regional State, North West Ethiopia. *BMC Pediatric*. 14:102.
- Pore. P & Ghattargi et. al (2010). Study of Risk Factors of Acute Respiratory Infection in Underfives in Sholapur. *National J Community Med*. 1:64-67.
- Shah. N & Ramanjuttu.V (2013).Treatment seeking behaviour in children in South Kerala, a hospital based case control study. *Journal of Tropical Pediatrics*; 40:201-26.
- Sarkar R. & Sivarathinaswamy et. al (2013) Burden of childhood diseases and malnutrition in a semi-urban slum in southern India. *BMC Public Health*.13:87.
- Sarkar. R & Sivarathinaswamy. P, et.al (2013). Childhood diseases in a semi-urban slum in southern India. *BMC Public Health*. 13:87.
- Srivastava D. & Tripathi et al. (2012) Morbidity profile of under-five children in urban slums of Etawah District. *Indian Journal of Community Medicine*. 12:153-7.
- Ukey. U & Chitre. D (2012). Respiratory diseases among Pre-school Children in an Urban Slum Area. *Indian Medical Gazette*.300-304.
- Venkatesh. S & Bansal. R (2011). A longitudinal study of morbidity among under-five children in a semiurban area. *Indian J Community Med*.11:1120.
- World Health Organization. Geneva. (2017) Technical bases for the WHO recommendations on the management of pneumonia in children at first level health facilities. Available at: http://apps.who.int/iris/bitstream/10665/61199/1/WHO_ARI_91.20.pdf accessed on 20 February 2017.