

A Study to Assess the Knowledge on Acute Respiratory Tract Infection Among Mothers of Under Five Children in a Selected Hospital, Chennai

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ABSTRACT

Acute respiratory infections are classified as upper respiratory tract infections or lower respiratory tract infections. The upper respiratory tract consists of the airways from the nostrils to the vocal cords in the larynx, including the Para nasal sinuses and the middle ear. The lower respiratory area shelters the prolongation of the airways from the trachea and bronchi to the bronchioles and the alveoli. Acute respiratory tract infections are not confined to the respiratory tract and have systemic effects because of possible extension of infection or microbial toxins, inflammation, and reduced lung function. The study was conducted by adopting a descriptive research design. The sample size was 30 mothers of under five children who fulfilled the inclusive criteria. They were selected by convenient sampling technique. The knowledge of the mothers was assessed by using the self-administered tool. The tool was constructed based on the review of literature and experts' suggestions. Major findings of the study: The level of knowledge of mothers regarding management of acute respiratory tract infection indicates that 9(30%) mothers having adequate knowledge and 21(70%) mothers having moderate knowledge. There was a significant association between age of mother, literacy level of mother, occupation, family income and number of children in the family with their level of knowledge regarding the management of acute respiratory tract infection at $p < 0.05$.

Keywords: acute, prevention, respiratory tract

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INTRODUCTION

Children are an embodiment of our dreams and hopes for the future. They are wet clay in the potter's hands; handled with care, they become something beautiful; else they break and become discarded. They are the most vulnerable group in the society [1].

Acute respiratory infections are classified as higher respiratory area infections or lower breathing tract infections [2]. Acute respiratory tract infections are not confined to the respiratory tract and have systemic effects because of possible extension of infection or microbial toxins,

inflammation, and reduced lung function [3].

Excluding during the neonatal period, simple respiratory tract infections are the greatest common reasons of both illness and mortality in children under five, who steady three to six episodes of acute respiratory tract infections annually regardless of where they live or what their economic situation is [4]. Serious childhood problem in countries with limited resources published by World Health Organization in 2004 reported that nearly 11 million children die each year before reaching their fifth birthday [5]. In

which the major causes of death was due to acute respiratory tract infection and diarrhea. About 19% of the deaths occur due to acute respiratory tract infection [6]. Acute respiratory tract infection has been identified as a preventable disease among six major communicable diseases which occurs in children. But it is still a major community health problem in many parts of the world including India [7].

NEED FOR THE STUDY

The health status of today's children reflects the health consciousness of the parents especially the mothers. The state of children's health at present everywhere challenges the national and international organizations. The respiratory tract constantly grows and changes until about 12 years of age. The young children's neck is shorter than adult resulting airway structures that are close together, which make them prone for infection. Colds, sometimes called rhinovirus or corona virus infections, are the most common illness to strike any part of the body [8].

Majority of the cases of acute respiratory tract infection do not need in patient care and can be treated at home. The mothers play a key role in the treatment of child with cough and cold. It is therefore very important that the mother understand the basic principles of home management. It is the duty of health workers and medical officers to assess the knowledge of mothers on home management [9].

Based on this concept the investigator felt that assessing the mother's knowledge regarding acute respiratory tract infection among under five children is the most important need for the community [10].

OBJECTIVES

[1] To assess the existing knowledge on acute respiratory tract infection among mothers of under five children.

[2] To associate the level of knowledge among mothers with their selected demographic variables.

METHODOLOGY

Research Design

The research design used in this study was descriptive study.

Setting of the Study

The study was conducted in child trust hospital, Chennai, Tamil Nadu. The total bed strength of the hospital is 600 which consist of 7 floors.

Population

The population of the study was all the mothers who are staying in hospital with their children.

Sample

The sample consists of mothers of under five children who fulfills the inclusive criteria.

Sample Size

Sample size consists of 30 mothers.

Sampling Technique

Convenient sampling technique was used by the researcher to select the sample.

Criteria for Sample Selection

Inclusive Criteria

- Mothers of children belonging to the age group of under five years.
- Mothers who are able to read and understand Tamil and English.
- Mothers who are willing to participate in the study.

Exclusive Criteria

- Mothers who have children more than 5 years.
- Mothers who do not know to read Tamil and English.
- Mothers who are not willing to participate in the study.

Description of the Instrument

A structured questionnaire was prepared to assess the knowledge of mothers of under five children. This consists of two parts.

Part I: Demographic Data

It includes age of mother, religion, literacy level, occupation, family income, type and number of children in the family [11].

Part II: Structured Questionnaire

It consists of 25 multiple choice questions regarding acute respiratory tract infection and its management. Each correct answer carries one mark and wrong answer carries zero mark. The total score is 25. If the score is:

- 21–25: Adequate knowledge
- 11–20: Moderate knowledge
- 0–10: Inadequate knowledge

Section A

The data from Table 1 shows that among 30 mothers, 7(23.33%) mothers were in the age group of below 20–24 years, 16(53.33%) were between 25 and 30 years, 6(40%) were between 30 and 35 years and 1 (3.33%) were aged above 35 years. Regarding literacy level 12(40%) of mothers were belongs to school level, 13(43.33%) mothers had completed undergraduate and 5(16.66%) mothers had completed postgraduate [12].

Table 1. Frequency and percentage distribution of demographic variables of mother. (N = 30).

S. no	Demographic variables of mother	Frequency (no)	Percentage (%)
1.	Age of Mother		
	20–24 years	7	23.33
	25–30 years	16	53.33
	31–35 years	6	20
	>35 years	1	3.33
2.	Literacy level		
	Illiterate	-	-
	School level	12	40
	Undergraduate	13	43.33
	Postgraduate	5	16.66
3.	Occupation		
	Employed	13	43.33
	Unemployed	17	56.66
4.	Family income		
	<Rs. 5,000	9	30
	Rs. 5,001–10,000	14	46.66
	>Rs. 10,000	7	23.33
5.	Type of family		
	Single family	12	40
	Joint family	8	60
6.	Number of children		
	One	16	53.33
	Two	13	43.33
	Three and above	1	3.33

With regard to occupation, 13(43.33%) mothers were employed and 17 (56.66%) mothers were unemployed. regarding family income 9(30%) mothers having the family income of below Rs.5000, 14(46.66%) were having the income of Rs. 5001–10000 and 7(23.33%) were having the income of more than Rs.10, 000.Regarding type of family 12(40%) of mothers belongs to nuclear family and

18(60%) belongs to joint family. With respect to number of children in the family 16 (53.33%) mothers having one child, 13 (43.33%) mothers having two children and 1 (3.33%) mother having more than two children in their family [13].

Section B

Table 2 shows the frequency and percentage distribution of level of

knowledge of mothers regarding management of acute respiratory tract infection. It indicates that 9(30%) mothers having adequate knowledge and 21(70%)

mothers having moderate knowledge regarding management of acute respiratory tract infection.

Table 2. Frequency and percentage distribution of level of knowledge of mothers regarding acute respiratory tract infection. (N=30).

S. no.	Level of knowledge	Frequency (no.)	Percentage (%)
1.	Adequate	9	30
2.	Moderate	21	70
3.	Inadequate	–	–

Section C

Table 3 shows that the association between selected variables of mother with their level of knowledge regarding acute respiratory tract infection. Analysis revealed that there a significant association between age of mother, literacy level of

mother, occupation, family income and number of children in the family with their level of knowledge regarding the management of acute respiratory tract infection at $p < 0.05$. There was no significant association between the type of family and level of knowledge of mothers.

Table 3. Association between level of knowledge of mothers with their selected demographic variables. (N=30).

S.no.	Demographic variables	Level of knowledge			X ²
		Inadequate	Moderate	Adequate	
1.	Age of Mother				$\chi^2 = 48.9$ df = 6 S.S
	20–24 years	–	5	2	
	25–30 years	–	11	5	
	31–35 years	–	4	2	
2.	>35 years	–	1	–	$\chi^2 = 10.2$ df = 6 SS
	Literacy level				
	Illiterate	–	–	–	
	School level	–	10	2	
3.	Undergraduate	–	6	7	$\chi^2 = 25.59$ df = 2 SS
	Postgraduate	–	4	1	
	Occupation				
4.	Employed	–	8	5	$\chi^2 = 13$ df = 4 SS
	Unemployed	–	13	4	
	Family income				
5.	< Rs. 5,000	–	6	3	$\chi^2 = 0.615$ df = 2 NS
	Rs. 5,001–10,000	–	1	3	
	>Rs. 10,000	–	4	3	
6.	Type of family				$\chi^2 = 22.26$ df = 4 SS
	Single family	–	9	3	
	Joint family	–	11	7	
6.	Number of children				
	One	–	11	5	
	Two	–	10	3	
	Three and above	–	1	–	

* $P < 0.05$, SS – statistically significant, NS – nonsignificant.

DISCUSSION

The First Objective of the Study Was to Assess the Existing Knowledge on Acute Respiratory Tract Infection Among Mothers of Under Five Children

Self-administered tool was used to assess the existing level of knowledge of mothers

regarding acute respiratory tract infection. It indicates that 9(30%) mothers having adequate knowledge and 21(70%) mothers having moderate knowledge regarding management of acute respiratory tract infection.

The study findings are consistent with the Simiyu et al. (2003) on mother's data, attitudes and performs (KAP) concerning severe respiratory infections in children in Baringo district, Kenya. Community-based cross-sectional survey design was used for the study. Totally 309 mothers with children aged 0–5 years were recruited following stratified random sampling in three areas of Baringo District. A mixed structured and unstructured questionnaire was administered to each of the respondent mothers by the investigator. Results showed that 34% had no formal education. Only 18% of mothers described pneumonia satisfactorily. 60.2% knew that measles is preventable by immunization. 87.1% of the mothers said they would seek health center services for severe ARI. Formal education had a positive influence on the KAP of the mothers.

The Second Objective of the Study Was to Associate the Level of Knowledge Among Mothers With Their Selected Demographic Variables

In association of level of knowledge with selected demographic variables revealed that there was a significant association between age of mother, literacy level of mother, occupation, family income and number of children in the family with their level of knowledge regarding the management of acute respiratory tract infection at $p < 0.05$. There was no significant association between the type of family and level of knowledge of mothers.

CONCLUSION

The present study assessed the knowledge on acute respiratory tract infection among mothers of under five children. The findings of the study concluded that majority of the mothers of under five children had moderate knowledge and some mothers had adequate knowledge. So, teaching program can be incorporated as an effective method to increase the level of knowledge among mothers about respiratory tract infection. It is necessary for mothers for an optimum level to

enhance the well-being of children which is a part of growth and development of children.

NURSING IMPLICATIONS

The findings of the study have implications in various areas of nursing education, practice, administration and nursing research.

Nursing Practice

A pediatric nurse is the one who is having the opportunity to come in contact with the children with respiratory tract infection and their caregivers during their hospitalization. She has a vital role in identifying or assessing their need to provide care for those children. Collaborative training program regarding healthy life styles to be provided for the care givers of children. The education in the clinical area should be provided in the form updating the knowledge of the staff by providing relevant in-service education program, emphasis in importance of parental participation in taking care of the children.

Nursing Education

Nurse educators not only have a role to educate the students, but also to educate the staff to prepare them and update their knowledge, so as to enhance the application of theory into practice. Developmental needs of the children should be included in the curriculum. Students must be encouraged to organize many educational programs for the public to create awareness on need to promote the health of the children for the development of psychological wellbeing.

Nursing Administration

With technological advances and ever-growing challenges of the health care needs, the administrator has a responsibility to provide with substantive continuing educational opportunities. This enables the nurses to update their knowledge, skills and quality of care. The

nurse administrator should concentrate more in the part of legal and ethical issues in the management of under five children with respiratory tract infection.

Nursing Research

Nurse researcher should be motivated to conduct more studies to identify the strategies of imparting knowledge to mothers of under five children about the management of respiratory tract infection. Nurse Researcher should focus on identifying the needs of those children and parental support to satisfy those needs. Nurse researcher should publish the study findings and communicate the findings regarding parental support to meet the needs of the children to enhance evidence-based practice.

RECOMMENDATIONS

The following are recommendations for further research:

- A similar study can be replicated on a larger sample.
- A study on practice of mother regarding management of acute respiratory tract infection can be done.
- A similar study can be replicated in a community area.

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