VOLUME - 12, ISSUE - 03, MARCH - 2023 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Nursing

EVALUATION OF A MOTHER'S KNOWLEDGE AND PRACTICE INTERVENTION PROGRAM FOR ACUTE RESPIRATORY INFECTIONS IN INDIAN CHILDREN

Shubha Bhardwaj* Principal - Awasthi Institute of Nursing Nalagarh HP *Corresponding Author

ABSTRACT Acute respiratory Infection (ARI) causes approximately 3.9 million deaths yearly in children under five years of age. In developing countries, where malnutrition is prevalent, and indoor air pollution is high, pneumonia is the leading cause of death. A structured questionnaire is used to collect data from 205 mothers. In addition, their practice regarding identifying, managing, and treating ARI is suboptimal due to inadequate knowledge about the signs and symptoms, prevalence, causes, diagnosis, and treatment of ARI. A significant correlation is found between education and age, whereas a significant correlation is found between joint family status and knowledge. The study highlights the importance of health education for mothers and suggests that nursing personnel can be crucial in counseling mothers in hospital and community settings.

KEYWORDS : acute respiratory infection, mothers knowledge, community health,

INTRODUCTION

In this study, mothers in a selected government hospital, FRU, in Nalagarh, are assessed regarding their acute respiratory infection (ARI) knowledge and practices. The study's statement of the problem is clearly defined, and its objectives are laid out systematically. Mothers' knowledge and practices regarding ARI management in children will be assessed, and selected variables will be identified. A guide sheet for mothers to educate them about managing ARI in children will also be developed as part of the study.

The study's operational definitions clearly explain the terms and concepts used in the research. Acute Respiratory infection refers to acute inflammation of the lung manifested as cough, cold, fever, chest indrawing, stridor, wheezing, and ear problems. Acute respiratory infections affect mothers or attendees with children under five years old. Knowledge refers to the correct verbal response of mothers of children with ARI to the structured interview schedule regarding knowledge questions about ARI. Practice refers to verbal responses of mothers of children with ARI listed in the structured interview schedule regarding practices or home management of children with ARI. Management refers to identifying signs and symptoms of ARI, proper child care during ARI, and mothers' knowledge and practices of ARI to prevent complications and protect children from risk factors. The information guide sheet refers to information regarding knowledge and management of children with ARI for creating awareness in mothers.

The study's assumptions are stated, such as the assumption that mothers may have some knowledge of ARI and the right practices to manage ARI. An information guide sheet based on the assessed knowledge and practice will be useful to them in following correct remedies in the management of ARI. The study's limitations are also mentioned, such as the study being limited to mothers of children with ARI who are admitted to selected Govt. Hospital FRU in Nalagarh is willing to participate in the study, is available during the data collection period, and can understand Hindi or English.

The study's theoretical framework is developed from the Health Belief Model, which provides a way of understanding and predicting how clients will behave concerning their health and compliance with healthcare therapies. The conceptual framework provides a logical, coherent structure through which phenomena of concern can be understood and discussed. The model comprises three primary components: individual perception, modifying factors, and the likelihood of initiating or engaging in action.

This study is significant as it aims to assess mothers' knowledge and practices regarding ARI management in children, identify associated variables, and develop an information guide sheet to educate them about ARI management in children. The study's limitations and assumptions are also addressed, and a theoretical and conceptual framework is presented to guide the study.

Literature Review

Studies on the incidence and prevalence of ARI in children reveal that it is a significant public health problem, especially in developing countries. Acharya et al. (2003) conducted a longitudinal study in South India and found an overall incidence of ARI to be 6.42 episodes per child per year, with 8.2% developing pneumonia and 0.51% having severe pneumonia. Sulanto et al. (2002) revealed that the incidence is higher among younger and rural children in Indonesia and that more than 65% of ARI-related deaths occurred outside hospital settings. Sharma et al. (1999) conducted a study in an urban slum area in Sundarpur, Varanasi, and found that ARI is confined to 88.96% of illnesses, with a rate of 6.11% per year among under-five children. Tambe et al. (1999) reported that the point prevalence of ARI is 7.6% among children below five years in the Northern Karnataka rural area, and Quazi et al. (1996) found that the appropriate use of antibiotic therapy decreased the case fatality rate in hospitals in Pakistan. Based on Patnaik (1991) 's survey of the East Godavari district of Andhra Pradesh, ARI-associated mortality rates are 15 times greater in infants, with a 0.4 per thousand case fatality ratio.

The literature review also includes studies on the knowledge and practice of mothers related to ARI management. Chan and Tang (2006) found that 59% of parents in Malaysia believed that weather is the main cause of acute upper respiratory tract infection in their children, 13% thought the food is the cause, and only 27% believed germs caused it. The same study also found that 68% and 76% of parents believed antibiotics help treat the common cold and cough, respectively. Another study conducted by Palafox et al. (2018) in rural Nepal found that only 5.5% of mothers knew the correct number of breaths per minute for a newborn and that only 21.5% knew the correct frequency of administering oral rehydration salts.

The literature review provides insight into the perception and interpretation of mothers of children with acute respiratory infections (ARI) and the need for education programs to improve patient outcomes. Muhe (1996) found that most mothers did not recognize the signs of pneumonia, and those who did recognize the signs did not interpret them as seriously. Teka and Dagnea (1995) found that most mothers recognized pneumonia by fast breathing and high fever, but only 35.6% visited the health center. Kresno et al. (1994) revealed that people perceived naturalistic and supernatural causes to be responsible for ARI. They also found that infants are first taken to an indigenous healer and are less likely to

receive an effective drug (i.e., antibiotics).

On the other hand, literature on education programs for better patient outcomes shows that information leaflets and antibiotic prescribing strategies for acute lower respiratory tract infection did not affect the main outcomes (Little et al., 2005). Tracy and Mayor (2000) suggested that a planned patient teaching program that includes a variety of teaching strategies and written materials can contribute to better patient outcomes. Dhar (1993) recommended that ARI education programs include universal immunization programs, oral dehydration therapy, and maternal-child health. Finally, Bandyopadhyay and Gayathri (1989) emphasized the need for adopting a clear-cut policy on health workers and nurses in ARI and determining standing orders for the management of ARI according to the policy of the local health administration of drugs.

Overall, the literature review highlights the importance of educating mothers on recognizing the signs of pneumonia and seeking appropriate medical attention. The studies also emphasize the need for education programs to be tailored to the community's beliefs and values and the involvement of health workers and nurses to improve the management of ARI in children.

METHODOLOGY:

The methodology and research design is crucial in making logical decisions for the study, and it helps select subjects, manipulate independent variables, and interpret data. An exploratory, descriptive survey design is chosen for this research, and the study are conducted at the selected Govt. hospital FRU, Nalagarh. The target population for this study is mothers of children under five with acute respiratory infections (ARI) admitted at the said hospital, and a purposive sampling technique is used. The inclusion criteria for the selection of samples included mothers present during data collection, mothers who understood Hindi or English, and their interest in participating.

The mothers at the selected government hospital, FRU, Nalagarh, are interviewed to assess their knowledge and practices regarding managing children with ARI. Literature reviews include books, journals, articles, research studies, and expert opinions that inform the tool development. A blueprint is prepared to construct the tool, which included 17 questions on knowledge and 17 on the knowledge of practice regarding managing ARI in children. The structured interview schedule have a total of 51 items, which are divided into two parts. Part I included 17 items related to the demographic variables of respondents, while Part II consisted of 34 items related to knowledge and practices about the meaning, causes, signs, and treatment of ARI in children.

Data are collected through face-to-face interviews, and a pilot study is conducted to test the tool's validity. Both descriptive and inferential statistics are used to analyze the data. Descriptive statistics describe the data, while inferential statistics test hypotheses. Overall, this methodology provides a comprehensive guide for conducting the research study on mothers' knowledge and practices regarding managing children with ARI at selected Govt. hospital FRU, Nalagarh.

RESULTS:

Children in rural areas aged less than five years are studied to determine the prevalence and determinants of acute respiratory infections (ARIs). Using a structured questionnaire, data are collected from 50 households in a cross-sectional design.

Table1: Major findings

Category of the respondents	Percentage
Age	60% aged 15-20 years
Marital Status	94% of respondents are currently married
Education	54% have lower secondary education
Occupation	54% housewives
Religion	60% Hindus, 36% Muslims, 4% Christians
Family Type	90% from nuclear families
Residence	78% lived in rural areas
Monthly Income	44% have a monthly income of Rs. 2,000-4,000
Child's Age	The majority of male children are aged 3-4 years, 84% of female children are between 1-2 years
Information Source about topic	52% received information through mass health education programs
Diet	80% used mixed diet
Family History	None have a family history of allergic respiratory disease
Immunization Status	78% of children are completely immunized
Health Problems	10% have a history of health problems
Worm Infestation	10% of children have worm infestation

The above table 1 provides insight into the prevalence and determinants of ARIs among under-five children in a rural area of West Bengal. The findings suggest that targeted health education programs should be designed to increase knowledge about preventive measures for ARIs. Moreover, efforts should be made to improve the immunization coverage of children and promote healthy dietary practices to reduce the prevalence of ARIs.

DISCUSSION:

The study checks mothers' knowledge and practices regarding children with acute respiratory infections (ARI) at Govt. Hospital FRU, Nalagarh, Solan, HP. The study uses purposive sampling techniques to select 50 mothers of children with ARI admitted to the hospital. The discussion section is structured under five headings.

Demographic characteristics, the report shows that most mothers are aged between 15-20 years, married, have secondary education, and are housewives. Most of the mothers belonged to nuclear families and lived in rural areas. The study also revealed that most mothers have one child, most of whom are completely immunized.

The study revealed that the mean knowledge score percentage is 33.4 percent. The report compares the study with previous studies and shows that the results are consistent with earlier studies. Most of the mothers recognized the importance of breastfeeding, but only a few are aware of the infective origin of ARI.

The practices of mothers regarding the management of children with ARI. The mean percentage of the practice is found to be 28.0 percent. The report notes that the practice score is low, and the study compared the findings with previous research, which showed poor maternal understanding of the etiology of ARI. The study found that various herbal and home care therapies are routinely employed to prevent ARI. The study revealed that mothers' knowledge and practices are significantly associated with their education and family income.

The report suggests that such a guide sheet for mothers on managing children with ARI could be used to improve

mothers' knowledge and practices regarding ARI management. The discussion section suggests that developing an information guide sheet for mothers could effectively improve their knowledge and practices regarding ARI management. The study highlights the importance of educating mothers about ARI management, which could significantly reduce the incidence of ARI among children.

Conclusions, Limitations, And Future Directions:

This study found that mothers of children under five have insufficient knowledge and practice regarding managing acute respiratory Infections (ARI). The study highlights the importance of educating mothers on preventing, identifying, and treating ARI to prevent complications. Educated mothers have higher practice scores, and joint-family mothers have higher knowledge scores. The study suggests that nurses are vital in educating mothers on ARI management, and health education should be a nursing intervention. The study also provides implications for nursing practice, education, administration, and research. The limitations include a small sample size and limited generalizability. The study recommends conducting further research to explore the depth of knowledge among mothers and assess the effectiveness of educational interventions.

The current study on the knowledge and practice of mothers in managing acute respiratory infection in their children has several limitations. Firstly, the study is limited to mothers of children admitted to a specific government hospital in India who are willing to participate and could understand Hindi or English, which may limit the generalizability of the findings to other populations. Additionally, the study only assessed the mothers and did not consider the perspectives of healthcare providers or other family members. Finally, the study did not assess the long-term impact of interventions on the knowledge and practice of mothers. The research addresses these limitations by conducting studies with larger and more diverse populations, assessing the perspectives of other stakeholders, and evaluating the long-term impact of interventions on the knowledge and practice of mothers.

REFERENCES:

1. Acharya, D., Prasanna, K. S., Nair, S., & Rao, R. S. (2003). Acute respiratory infections in children: a community based longitudinal study in south India. *Indian journal of public health*, *47*(1), 7-13.
2. Palafox, Benjamin, et al. "The World Heart Federation Roadmap for reducing cardiovascular morbidity and mortality through prevention and control of rheumatic heart disease."
3. Patnaik SK. Acute respiratory infection in children: a survey in East Godavari District of Andhra Pradesh. Journal of Community Journal 1991 Mar; 23(1):347.
4. Quazi SA, Rehman GN, Khan MA. Standard management of acute respiratory infections in a children's hospital in Pakistan: impact on antibiotic use andcase fatality. Bull World Health Organ. 1996; 74(5): 501-7.
5. Sharma AK, Reddy DC, Dwivedi RR. Descriptive epidemiology of acute respiratory infection among under five children in an urban slum area. IndianJ. Public Health 1999 Oct-Dec; 43(4): 156 –9.
6. Sulanto A, Gessner BID, Djalantik L, Stein M, Murphy H. Acute respiratoryillness incidence and death among children under two years of age on LombokIsland Indonesia. Am J. Trop Med Hyg. 2002 Feb; 66(2): 175-9.
7. Tambe MR, Shivaram C, Chandrashekhar I. Acute respiratory infection inchildren: a survey in the rural community. Indian J Med Sci. 1999 Jun; 53(6):249-53