

Knowledge of Bronchopneumonia among Caretakers of Infants

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Abstract: Fifty consecutive caretakers of bronchopneumonia attending in and outpatient services at D.Y Patil Hospital and Research Centre, Nerul, Navi Mumbai were interviewed using questionnaire to determine the knowledge of caretakers of infants diagnosed with bronchopneumonia. **Methodology:** A cross sectional survey was conducted to assess the knowledge of caretakers regarding definition, etiology, risk factors, pathophysiology, myths and misbeliefs, prevention and management of infants with Bronchopneumonia. **Findings:** The maximum percentage of caretakers in age group belongs to 26-30yrs The maximum caretakers were female care takers with frequency 46 (92%), The lack of knowledge among mothers about simple signs and symptoms of pneumonia, and also the lack of knowledge about its causes and factors related with pneumonia become important findings of this study. **Conclusion:** It is necessary to strive hard to spread awareness about the preventive measures of Bronchopneumonia among caretakers of infants.

Keywords: Caretakers, Infants, Knowledge, Bronchopneumonia.

1. Introduction

Pneumonia – a lung infection caused by bacteria, viruses and rarely fungi – is the most common cause of death in children worldwide. World Health Organization (WHO) has classified pneumonia as severe or very severe based on clinical presentation. Standard management of severe pneumonia requires hospitalization for supportive treatment including oxygen therapy, airway suctioning, fluid and nutritional management, antimicrobials, and careful monitoring. Appropriate health care for pneumonia in rural community is very critical due to inadequate number of healthcare facility. Moreover, lack of knowledge about the danger signs and symptoms of pneumonia among the primary caregivers is another cause of delay in seeking care for childhood pneumonia, which could even be life threatening.

2. Need for the Study

Pneumonia is one of the leading causes of mortality among under five children in most developing countries. It is estimated to cause 1.9 million deaths each year. According to official estimate from the WHO for the year 2000, two thirds of all these deaths were in just 10 countries and were maximum in India. More than 20% of world's pneumonia deaths still occur in India, resulting in greater than 370,000 child deaths annually. Statistics related to pneumonia are:

- Pneumonia causes 19 per cent deaths in children (estimated 1.4 million children) under the age of five years every year.
- Every year, 156 million new pneumonia cases are reported and around 8.7 per cent of these cases are severe and need hospitalization.
- India reports maximum number of new cases of pneumonia (43 million). China comes second with 21 million new cases and Pakistan is third in the list with 10 million new cases.

- Every year, pneumonia causes death of 410,000 children in India.
- Streptococcus pneumonia and Haemophilus influenza are responsible for causing pneumonia in more than 50% of all childhood cases.

Effective interventions to reduce deaths due to pneumonia are available but very few reach the children. More than a million lives could be saved if prevention and treatment interventions were implemented universally. Recognizing the symptoms of pneumonia is the first step in reducing deaths among children under five.

3. Review of Literature

According to Shinde M (2007) Review of literature is important for having a broad understanding of the problem. "The material gathered in literature review should be an integral part of research data. Since what is found in the literature does not only have the influence which is important for formulating the problem and design of research, but also provides useful comparative material, when the data collected in the research is analyzed." A review of related literature gives an insight into the various aspects of the problems under study. The review serves as an integrated function that facilitates the accumulation of knowledge. Hence, review of literature is important to a research in order to know what has been established and documented [1].

3.1 Literature related to knowledge of caretakers

Kale, M., Gholap, M., & Shinde, M. (2014) Concluded that As student health care workers become more involved in patient contact during their training, they are at risk of exposure to blood borne pathogens. The safety of student health care workers themselves, and subsequently that of their patients, depends directly upon the degree to which student nurses have knowledge of occupational hazards specific to their jobs and management mechanism for mitigating those hazards. The level of occupational safety

and health training resource available to student nurses, as well as management support, are critical factors in preventing adverse outcomes from routine job-related hazards [2]. Deshmukh, M., & Shinde, M. (2014) stated in their study the maximum of 43.33 % of samples scored between 0-13 (Poor) in the knowledge regarding Venous Access Device Care among Nurses [3]. Shinde, M., Desai, A., & Pawar, S. (2014). Found their study that Most of the caregivers (30%) had no prior knowledge about schizophrenia. The fathers (24 %) and relatives (24%) were the major caregivers for the patients. Caregivers considered medical intervention to be the most important, but they also advocated supportive interventions such as counseling and family support. Financial problem was one of the factors that impacted negatively on follow-up of patients [4]. Desai, A., Shinde, M., & Mohite, V. (2014). Concluded that knowledge of mental illness among caregivers of alcoholic patients was average and there is need to improve the knowledge of caregivers. Also need to formulate and implement the programme on awareness of mental illness [5].

3.2 Literature related to knowledge of bronchopneumonia

Every year an estimated 156 million new cases of pneumonia and nearly 2 million deaths from the disease occur in children under 5 years of age. The World Health Organization estimates that one in three newborn infant deaths is due to pneumonia. Approximately half of these cases and deaths are theoretically preventable, if caused by bacteria for which an effective vaccine is available. In 2008 pneumonia occurred in approximately 156 million children (151 million in the developing world and 5 million in the developed world). Countries with the greatest burden of disease include: India (43 million), China (21 million) and Pakistan (10 million).

The first-ever report tracking global progress against pneumonia, the leading killer of children under five years of age, finds that India is witnessing the highest number of pneumonia related child deaths in the world. The infection is killing 16 lakh under five children every year, more than 3.7 lakh in India alone.

Each year more than 10 million children die before they reach their fifth birthday. Seven in ten of these deaths are due to just five preventable and treatable conditions: pneumonia, diarrhoea, malaria, measles, and malnutrition, and often a combination of these conditions [6]. The estimated proportion of deaths in which under nutrition is an underlying cause are roughly similar for diarrhea 61%, malaria 57%, pneumonia 52%, and measles 45% [7], [8], [9]. This problem causes a higher under five mortality rate (UMR) especially in South-East Asia [10]. Pneumonia is the most important cause of morbidity and mortality in children aged under 5 years worldwide [11],[12]. Between 11 and 20 million children with pneumonia worldwide will require hospitalization, and more than 2 million will die from pneumonia. South Asia and Sub-Saharan Africa have the highest incidence of pneumonia cases among children under five [13]. Until 2001, pneumonia was still the first cause of death among children under five years in Indonesia. It was reported that about 22.8% of death

of children under five years in 2001 was caused by pneumonia [14].

Several risk factors for acquiring respiratory infections in developing countries, such as poverty, low family income, low parental education level, low birth weight, malnutrition, and lack of breastfeeding, have been described [15]. The incidence of pneumonia and bronchitis has been studied in 2205 infants over the first five years of life.

Since access to health services is limited in many developing countries, prompt treatment may also require training health workers to diagnose and treat children with pneumonia in the community [16]. Studies show that community health workers can effectively manage uncomplicated pneumonia in the community. Mother's knowledge can be very important factors in reducing the occurrence of pneumonia in children under 5 years.

Thailand has less occurrence of getting pneumonia among its children. But it's not been sure that community involvement, which can be included mothers knowledge regarding pneumonia assessment and prevention is important issue that supports for decreasing pneumonia occurrence in Thailand. Since there was no evidence of research in term of mother's knowledge and perception about pneumonia in Thailand, especially by using Integrated Management of Childhood Illness (IMCI) [17] as guidance, it becomes necessary to conduct this research for providing information related with it.

4. Research Methodology

4.1 Research Approach

In this study non experimental approach was used to assess the knowledge of caretakers of infants regarding bronchopneumonia. .

4.2 Research Design

In this study the design used is descriptive design to ascertain the knowledge of care takers of infants diagnosed with Bronchopneumonia.

a) Dependent Variable

Dependent variable is caretakers of the infants

b) Independent Variable

Independent variable is knowledge related to bronchopneumonia among care takers of infants.

4.3 Settings of the study

This study was conducted at the pediatric department, D.Y. Patil hospital

4.4 Population of the study

In this study the population, for the study is selected from the caretakers of infants attending pediatric OPD, admitted in NICU, PICU and pediatric ward.

4.5 Sample size

The sample consists of 50 caretakers of infants. The sample is taken from pediatric ward, NICU, PICU and OPD.

4.6 Sampling technique

Purposive sampling technique was used to select the samples.

a) Inclusion criteria

- A. Sample consists of only caretakers of infants who are admitted in D.Y Patil Hospital.
- B. Sample consists of caretakers who are willing to participate in this study.
- C. Samples are selected irrespective of sex, caste, religion, socio economic status.
- D. Sample consists of caretakers who are adult i.e above 18 years of age.

b) Exclusion criteria

- Caretakers who are not willing to participate.
- Caretakers who are not above 18 years of age.

4.7 Tools

Demographic data of caretakers:

Knowledge related to definition, incidence, etiology, risk factors, signs and symptoms and pathophysiology of bronchopneumonia.

Myths in care of infants diagnosed with bronchopneumonia.

Management and preventive measures of infants diagnosed with bronchopneumonia.

5. Plan for Data Analysis

The data was analyzed based on the objective and hypothesis using descriptive and inferential statistics.

6. Major Findings of the Study

The maximum percentage of caretakers in age group belongs to 26-30yrs with frequency 22 (44%) and the minimum percentage belongs to 30-34yrs with frequency 4 (8%). The maximum percentages were female care takers with frequency 46 (92%), and in religion is Muslims with frequency 20 (40%) and minimum is others with frequency 3 (6%)

The knowledge of caretakers about bronchopneumonia (definition, incidence, etiology, risk factors, signs and symptoms and pathophysiology) was assessed. The knowledge of care takers about the definition of bronchopneumonia with frequency 20 is (40%), incidence with frequency 12 is (24%), etiology with frequency 9 is (18%), risk factors with frequency 38 is (76%), signs and symptoms with frequency 22 is (44%), and pathophysiology with frequency 46 is (92%).

Maximum caretakers with the frequency of 36 (72%) does not know how to manage the infant diagnosed with Bronchopneumonia while caretakers with the frequency of 14(28%) know how to manage.

Maximum caretakers with the frequency of 25(56%) does not know about prevention whereas 22 (44%) caretakers know how to prevent the disease.

7. Conclusion

In 2012 more than 43million infants died due to bronchopneumonia in developing countries. As nursing professional it is our responsibility to reduce the mortality rate due to bronchopneumonia, and it is essential that every caretaker of infants must be well aware of the etiological factors, predisposing factors, symptoms, management and prevention of bronchopneumonia. Prompt education to the care takers of infants diagnosed with Bronchopneumonia help to manage and prevent further complications.

8. Scope of Study

The implications towards nursing education, administration, practice and research.

a) Nursing education

Nursing curriculum has incorporated bronchopneumonia in the syllabus of 3rd year Basic B.Sc Nursing students. Health personnel are trained to spread awareness to the public on Bronchopneumonia.

Nursing students should be made aware about their responsibilities in preventing Bronchopneumonia with the help of Role-plays, Puppet shows, Camps etc. Therefore, a need is felt for changing the knowledge and attitude of nursing towards helping patients and become partners in their health care.

b) Nursing practice

Nurses should have a good knowledge and communication skill to develop good rapport with the community. This will help the care takers to gain knowledge about bronchopneumonia.

Nurses have good role in school health nursing as they become a liaison between the teachers and parents to prevent bronchopneumonia.

c) Nursing administration

The findings done in the study will help to make changes in hospital care. Administration should arrange health care programs for patients during their hospital stay. Nursing administration should conduct health education and in-service education for students and staff to increase the knowledge about bronchopneumonia.

d) Nursing research

The ultimate goal of any profession is to provide its clients with maximum effective services. This study expands the knowledge about bronchopneumonia. Nurses should be engaged in various research programmes to improve their knowledge and to solve the health problems.

Researches about bronchopneumonia should be done to decrease mortality and morbidity rate of infants.

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