Home Health Care for the Children with Pneumonia

Thesis

Submitted for partial fulfillment of Master degree
in Community Health Nursing

By

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(B.sc. Nursing science)
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Hanan Mohamed Mohamed

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List of Abbreviations

Abbrev.	Full-term
AAPOR	**:** American Association of Public Opinion Research
ARDS	**:** Acute Respiratory Distress Syndrome
CAP	**:** Community Acquired Pneumonia
HIV	**:** Human Immunodeficiency Virus
IgA	**:** Immunoglobulin A
IgG	**:** Immunoglobulin G
IgM	**:** Immunoglobulin M
MRSA	**:** Methicillin-Resistant Staphylococcus Aureus
PPD	**:** Purified Protein Derivative
RSV	**:** Respiratory Syncytial Virus
RVS	**:** Respiratory syncytical virus
SD	**:** Standard deviation
SPSS	**:** Statistical package for social science
TB	**:** Tuberculosis
UNICEF	**:** United Nations Children's Fund
URI	**:** Upper Respiratory Tract Illness
WHO	**:** World Health Organization

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Home Health Care for the Children with Pneumonia

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Abstract

Background: Pneumonia is an Inflammation of the lung parenchyma and it is one of the leading causes of mortality in children aged less than five years. **Aim:** assess home Health Care for the Children with Pneumonia. **Research design:** A descriptive design was utilized in the study. **Setting:** pediatric outpatient clinic in EL-Rahmaniya hospital, Al Bauhayrah governorate, Maternal and child center affiliated to hospital and home visiting. **Sample**: a purposive sample composed of 315 children diagnosed with pneumonia. **Tools: First tool:**an interviewing questionnaire designed by the investigator to assess socio demographic characteristics of mothers & children, mothers' knowledge, mothers' behaviors and mothers' practices. **Second tool:** home environmental observational checklist**. Third tool,** physical assessment sheet to assess vital sings growth & development .**Results:** More than half of studied mothers had poor knowledge (60%). Majority of studied mothers had a negative behavior (87%). Two thirds of studied mothers had unsatisfactory level of practice (66%). three quarters of families had problems in home environment (74.3%). **Conclusion:** there was highly statistically significant relation between mother's knowledge about pneumonia and their socio demographic characteristics. Also, there was highly statistically significant relation between mother's knowledge and their practice. Moreover, there was highly statistically significant relation between mother's knowledge and their environmental health problems. **Recommendations:** Further studies should be conducted to improve mothers' knowledge and practices for proper caring of their children with pneumonia and increase their awareness about pneumonia.

Keywords: pneumonia in children - home healthcare.

Introduction

Pneumonia is an illness usually caused by infection, where the lungs become inflamed and congested, thus reducing oxygen exchange and leading to cough and breathlessness. It's the leading cause of mortality among children less than five years of age, despite effective vaccines and nutritional and environmental interventions ***(Scott et al., 2018).***

Pneumonia is responsible for about 19% of all deaths in children aged less than 5 years. Childhood pneumonia incidence is estimated to be 0.29 episodes per child-year in developing and 0.05 episodes per year in developed countries. 7-13% of all the community cases are severe enough to be life threatening thus requiring hospitalization ***(DeAntonio et al., 2016).***

Children whose immune systems are compromised are at higher risk of developing pneumonia. A child's immune system may be weakened by malnutrition or undernourishment, especially in infants who are not exclusively breastfed. Pre-existing illnesses, such as symptomatic HIV infections and measles, also increase a child's risk of contracting pneumonia. Environmental factors also increase a child's susceptibility to pneumonia indoor air pollution, living in crowded homes and parental smoking ***(Eduardo et al., 2016).***

Diagnosis of pneumonia consists of two very important parts; first is to determine the syndrome by history clinical examination and chest radiology; and secondly is to determination of etiology by laboratory tests. Intensive physical examination should be done with the respiratory system being the main center of attention or focus. Important information can be gained through careful observation and it is of great importance especially in very young children as they difficult to examine ***(Zar et al., 2017).***

Pneumonia should be treated with antibiotics. The antibiotic of choice is amoxicillin dispersible tablets. Most cases of pneumonia require oral antibiotics, which are often prescribed at a health center. These cases can also be diagnosed and treated with inexpensive oral antibiotics at the community level by trained community health workers. Hospitalization is recommended only for severe cases of pneumonia ***(Chen et al., 2019).***

Prognosis of pneumonia is good in early diagnosis &early initiation of treatment in appropriate time otherwise leads to serious complications and may have fatal outcome. As prevention is better than cure, the rate of incidence can be reduced by giving adequate knowledge regarding the risk factors, etiology, clinical manifestation, prevention &when to seek medical help ***(Jena, 2014).***

Recognizing symptoms of pneumonia is a major first step in reducing pneumonia deaths among children under five years. Parents or guardians have a critical role to play in recognizing signs and symptoms of pneumonia and seeking medical attention for their sick children. Another crucial aspect of recognizing the symptoms is the risk pneumonia poses to the health of their children thus the parents should really understand the importance of pneumonia ***(Gilbert et al., 2015).***

Significance of the study:

Pneumonia is the number of infectious killer of children under age 5 globally, killing an estimated 935,0002 children each year, that's more than 2500 per day > pneumonia causes 15% of all deaths in children under age 5 worldwide. Increase the capability of families to recognize danger signs of pneumonia in children and to encourage appropriate and early care – seeking behavior is important ***(Abuka, 2017)***.

Approximately 28,436 cases of pneumonia occur in Egypt accounting for approximately 17,075 for male children and 11,361 for female children and according to the WHO statistical in Egypt cause of deaths in children under 5 years approximately 11% from pneumonia in 2013 ***(WHO, 2018).*** Therefore it is necessity to assess home health care for children with pneumonia.

Aim of the Study

The study is aimed to assess home health care for children with pneumonia through:-

1) Assessing mother's knowledge toward their children with pneumonia.
2) Assessing mother's practice toward their children with pneumonia.
3) Assessing mother's behavior toward health needs of their children with pneumonia.
4) Assessing home environmental problems of children with pneumonia.
5) **Research questions:-**

1. Is there a relation between mother's knowledge about pneumonia and their socio demographic characteristics?
2. Is there a relation between mother's knowledge and their practice toward their children with pneumonia?
3. Is there a relation between mother's knowledge and their behavior toward health needs of their children with pneumonia?
4. Is there a relation between mother's practice and their environmental problems toward their children with pneumonia?

Review of Literature

Part I: Overview of pneumonia

Anatomy of respiratory system:-

The respiratory system consists of the following organs: the nose, pharynx, larynx (i.e., voice box), trachea, bronchi, bronchioles, and lung. These are involved in taking in oxygen upon inspiration and expelling carbon dioxide upon expiration. Upper respiratory tract anatomy includes the nose, nasal cavity, ethmoidal air cells, frontal sinuses, maxillary sinus, larynx and trachea. Lower respiratory tract anatomy includes the lungs, bronchi, bronchioles, and alveoli ***(Gloria, 2016).***

The lungs themselves are a pair of conical organs made up of spongy, pink and gray tissue. The lungs are encased in a membrane called pleura. The pleura contains the only nerves in the respiratory system; hence it is the only site of pain. The right lung has three lobes; the left has two lobes; therefore, the right lung is somewhat larger and sits higher in the chest. The main-stem bronchi divide into smaller bronchi, and then into smaller bronchioles. The bronchioles terminates in the microscopic air sacs called alveoli ***(Luanne, 2017)***.

The anatomy of a child's lung is very similar to that of an adult. The lungs are a pair of air-filled organs consisting of spongy tissue called lung parenchyma. Three lobes or