

# **Parents' Care About Pneumonia Among Preschool Children**

*Thesis*

*Submitted of Master Degree in Nursing Sciences  
(Community of Health Nursing)*

*By*

**Amira Ahmed Ali Hassan**

*(B.Sc. Nursing, 2004)  
Al-Monoufia University*

**Faculty of Nursing  
Ain Shams University  
2018**

# **Parents' Care About Pneumonia Among Preschool Children**

*Thesis*

*Submitted of Master Degree in Nursing Sciences  
(Community of Health Nursing)*

*Under Supervision*

**Prof. Dr. Seham Guirguis Ragheb**

*Professor of Community Health Nursing  
Faculty of Nursing  
Ain Shams University*

**Dr. Asmaa Talaat Mohamed**

*Lecturer of Community Health Nursing  
Faculty of Nursing  
Ain Shams University*

**Faculty of Nursing  
Ain Shams University  
2018**



# Acknowledgement

*Thanks to **Allah** who have lightened my path to accomplish this work,*

*Really, I can hardly find the words to express my gratitude to **Prof. Dr. Seham Guirguis Ragheb**, Professor of Community Health Nursing, faculty of Nursing, Ain Shams University, for her great encouragement, excellent guidance, powerful support, valuable constrictive advices and generous help, precious time, relentless mentoring and valuable support.*

*I would like also to express my gratitude to **Dr. Asmaa Talaat Mohamed**, Lecturer of Community Health Nursing, and faculty of Nursing, Ain Shams University, for her assistance, continuous directions and support throughout the whole work,*

*Special thanks are also extended to all the participants in this study who gave their time and cooperation during data collection.*

***Dr. Amira Ahmed Ali Hassan***

## ***LIST OF CONTENTS***

<i>Title</i>	<i>Page</i>
- List of Tables.....	I
- List of Figures .....	III
- List of Abbreviations.....	IV
- Abstract.....	V
▪ <b>Introduction</b> .....	<b>1</b>
▪ <b>Aim of the Study</b> .....	<b>5</b>
▪ <b>Review of Literature</b>	
➤ <b>Part I:</b> Over view about Pneumonia.....	6
➤ <b>Part II:</b> Health Needs & Problems of Preschool Children with Pneumonia.....	37
➤ <b>Part III:</b> Community Health Nursing Role to Ward Pneumonia Among Preschool Children.....	43
▪ <b>Subjects and Methods</b> .....	<b>57</b>
▪ <b>Results</b> .....	<b>66</b>
▪ <b>Discussion</b> .....	<b>86</b>
▪ <b>Conclusion</b> .....	<b>98</b>
▪ <b>Recommendations</b> .....	<b>99</b>
▪ <b>Summary</b> .....	<b>101</b>
▪ <b>References</b> .....	<b>110</b>
▪ <b>Appendices</b> .....	<b>137</b>
▪ <b>Protocol</b>	
▪ <b>Arabic Summary</b>	

---

## ***LIST OF TABLES***

<b><i>No.</i></b>	<b><i>Table</i></b>	<b><i>Page</i></b>
<b>Tables in Review of Literature</b>		
<b><u>1</u></b>	Classification of pneumonia.	<b>24</b>
<b>Tables in Results</b>		
<b><u>1</u></b>	Distribution of the studied children according to their socio-demographic characteristics.	<b>67</b>
<b><u>2</u></b>	Distribution of the studied parents according to their socio-demographic characteristics.	<b>68</b>
<b><u>3</u></b>	Distribution of the studied sample according to their home environment.	<b>70</b>
<b><u>4</u></b>	Distribution of the studied parents according to their total satisfactory score level related to knowledge about pneumonia.	<b>73</b>
<b><u>5</u></b>	Distribution of the studied children according to their physiological needs.	<b>75</b>
<b><u>6</u></b>	Distribution of the studied parents related to practice according to their pneumonia.	<b>77</b>
<b><u>7</u></b>	Distribution of the studied children according to their always score level regarding to health problems.	<b>79</b>
<b><u>8A</u></b>	Distribution of the studied children according to their laboratory investigations.	<b>81</b>
<b><u>8B</u></b>	Distribution of the studied children according to their physical examination.	<b>82</b>

<i>No.</i>	<i>Table</i>	<i>Page</i>
<b><u>9</u></b>	Relation between parent's socio demographic characteristics and their knowledge regarding pneumonia.	<b>83</b>
<b><u>10</u></b>	Relation between parent's socio demographic characteristics and their practices regarding pneumonia.	<b>84</b>
<b><u>11</u></b>	Correlation between knowledge of the studied parent's and their practices regarding pneumonia.	<b>85</b>

## ***LIST OF FIGURES***

<i>No.</i>	<i>Figure</i>	<i>Page</i>
<b>Figures in Review of Literature</b>		
<u>1</u>	Anatomy of Respiratory System.	<b>7</b>
<u>2</u>	Physiology of Respiratory System.	<b>9</b>
<u>3</u>	The Mechanisms of Breathing.	<b>11</b>
<b>Figures in Results</b>		
<u>1</u>	Distribution of the studied parents according to their smoking.	<b>69</b>
<u>2</u>	Distribution of the studied parents according to their information sources.	<b>73</b>
<u>3</u>	Distribution of the studied parents according to their total score level related to knowledge about pneumonia.	<b>74</b>
<u>4</u>	Distribution of the studied children according to their total physiological needs.	<b>76</b>
<u>5</u>	Distribution of the studied parents related to total practice according to their children with pneumonia.	<b>78</b>
<u>6</u>	Distribution of the studied children to their total score level regarding to health problems.	<b>80</b>

## ***LIST OF ABBREVIATIONS***

<i>Abb.</i>	<i>Meaning</i>
<b>ARI</b>	: Acute respiratory infection
<b>CDC</b>	: Center for Disease Control
<b>CHN</b>	: Community health nurses
<b>Hib</b>	: Haemophilus influenzae type b
<b>IMCI</b>	: Integrated Management of Childhood Illness
<b>LA</b>	: Left atrium
<b>PA</b>	: Pulmonary artery
<b>PVs</b>	: Pulmonary veins
<b>SNNPR</b>	: Southern Nation Nationalities and Peoples' Republic
<b>UNICEF</b>	: United Nations Children's Fund
<b>URT</b>	: Upper respiratory tract

## Parents' Care About Pneumonia Among Preschool Children

\* AmiraAhmed Ali Hassan , \*\* Seham Guirguis Ragheb, \*\*\* AsmaaTalaat Mohamed

\* Nursing Master Student , \*\* Professor of Community Health Nursing, \*\*\*Lecturer of Community Health Nursing, Faculty of Nursing , Ain Shams University

### Abstract

The crucial role of parents in home-based treatment and educational programs dedicated for them have to ensure that parents have a clear or better understanding of the importance of pneumonia and its treatment course, and are convinced of treatment efficacy. **Aim:** assess parents' care for preschool children with pneumonia. **Research design:** A descriptive design was used in this study. **Setting:** pediatric outpatient clinic at the Nasser Institute Hospital for Research and Treatment, Cairo, Egypt. **Sample:** A purposive sample composed of 135 children diagnosed with pneumonia and their parents. **Tools:** *First tool*, an interviewing questionnaire designed by the investigator to assess a) socio-demographic data of children, b) socio-demographic data of parents, C) parent's knowledge, D) parent's reported practice. E) child health problems and needs. **Second tool**, consisted of a) Child medical record data, b) Physical examination tool. **Results:** More than half of the studied parents had unsatisfactory knowledge (52.6%). More than half of the studied parents had not done practice(57.8 %). More than two thirds of the studied children had health problems (63.7%). More than half of the studied children had achieved needs (56.3%). **Conclusion:** There was a highly statistically significant relation between the studied parents demographic characteristics (age, education level and occupation) and their knowledge. There was a statistically significant relation between the studied parents demographic characteristics (age, education level and occupation) and their practice. There was a positive correlation between total knowledge and total practice. **Recommendations:** Further research studies are needed for ongoing education of parents including large sample for generalization of results.

**Keywords:** Pneumonia – Preschool Children - Parents' Care

## **Introduction**

Pneumonia is the inflammation of the lung parenchyma characterized by cough, sore throat, running nose, fast & difficulty breathing, wheezing, fever, irritability, chest pain, chill, tachycardia. It is one of the major reason for which children are brought to the hospitals and health facilities. Most children have 3 to 5 attacks of acute respiratory infection (ARI) in each year (**Jena, 2014**).

Approximately two million children under five die from pneumonia each year, accounting for nearly one in five child deaths globally. The incidence of clinical pneumonia in developing countries range between 20-30% (**Abdulkadir et al. 2016**).

In developing countries, low socio-economic status, malnutrition, low birth weight, non-exclusive breastfeeding, indoor air pollution, crowding, parental smoking, zinc deficiency, mother's experience as a caregiver, mother's age, lack of education in the mother, humid conditions, high altitude, vitamin A deficiency, birth order and outdoor air pollution were found as possible risk factors associated with pneumonia among children (**Rudan et al., 2015**).

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 (**Kallander et al., 2016**).

Treatments of pneumonia include either antibiotics or antiviral medicines, according to its type. Pneumonia can be prevented among children less than five years by providing mothers by information about practicing good hygiene thorough frequent hand cleaning, avoiding interaction with any children who are sick, receiving good nutrition, Avoiding passive smoking . It is also important to increase access to immunization, reduce indoor and outdoor air pollution (**Center for Disease Control and Prevention CDC, 2016**).

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**).

Insufficient knowledge about the danger signs and symptoms of pneumonia among the parents are another cause of delayed seeking care for childhood pneumonia, which could even be life threatening Regarding causative agent of pneumonia in children under five years bacteria, viruses, or fungi which live in the nose, mouth, sinuses can enter the lungs and create infections, including pneumonia. Also they can get the bacteria or viruses from people who are infected with them, whether they show symptoms or not (**Abolwafa & Mohamed, 2017**).

## **Significance of the study:**

Pneumonia is the number one infectious killer of children under age 5 globally, killing an estimated 935,000 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**). Therefore it is a necessity to assess parents' care about pneumonia among preschool children.

## **Aim of the Study**

The study aimed to assess parents' care for preschool children with pneumonia through:

1. Assessing parent's knowledge about pneumonia.
2. Assessing parent's Practices regarding their children with pneumonia.
3. Needs and problems of children with pneumonia.
4. Assessing physical health status of children with pneumonia.

### **Research questions:**

1. Is there a relationship between parent's socio demographic characteristics and their knowledge regarding pneumonia?
2. Is there a relationship between parent's socio demographic characteristics and their practices regarding pneumonia?
3. Is there a relationship between parent's knowledge and their practices regarding pneumonia?

# **Review of Literature**

## **Part I: Over view about Pneumonia**

### **Respiratory system:**

The respiratory system provides oxygen to the body's cells while removing carbon dioxide, a waste product that can be lethal if allowed to accumulate. There are 3 major parts of the respiratory system: the airway, the lungs, and the muscles of respiration (**Lan, 2015**). The airway, which includes the nose, mouth, pharynx, larynx, trachea, bronchi, and bronchioles, carries air between the lungs and the body's exterior. The lungs act as the functional units of the respiratory system by passing oxygen into the body and carbon dioxide out of the body (**Fekadu et al., 2014**).

### **Anatomy of Respiratory System:**

The respiratory system (RS) can be subdivided into an upper respiratory tract (URT) and a lower respiratory tract (LRT) based on anatomical features (**Blackmore et al., 2016**).