



# “A Descriptive study to assess the knowledge and practices regarding prevention of Bronchopneumonia among the Mothers of under five children in Selected hospitals of Metropolitan city In view to develop Information Booklet.”

Miss. Akula. Meena.Subbaiah

Institute of Nursing Education, Sir J.J. Group of Hospitals campus, Byculla, Mumbai-08

## CHAPTER I

### INTRODUCTION

“ We never stand so tall as when we stop to help a child .”

--Abraham Lincoln

Children are vital to the nation’s present and its future. Parents, grandparents, aunts, and uncles are usually committed to providing every advantage possible to the children in their families, and to ensuring that they are healthy and have the opportunities that they need to fulfill their potential. Yet communities vary considerably in their commitment to the collective health of children and in the resources that they make available to meet children’s needs. This is reflected in the ways in which communities address their collective commitment to children, specifically to their health.<sup>1</sup>

As per BT Basvanthaapa Child Health Nursing 1<sup>st</sup> edition says that, Children constitute the most important and vulnerable segment of our population. They are truly the foundation of the Nation. Hence, the focus of every citizen should be to promote their health and safeguard their interest. “A healthy child is a sure future” is one of the themes of WHO. Healthy children grow to become healthy adults, who are strong both in body and mind. Every year ARI in young children is responsible for an estimated 3.9 million deaths worldwide.

It is estimated that Bangladesh, India, Indonesia and Nepal together account for 40 per cent of the global ARI mortality. About 90 per cent of the ARI deaths are due to pneumonia which is usually bacterial in origin. The incidence of ARI is similar in developed and developing countries. However, while the incidence of pneumonia in developed countries may be as low as 3-4 per cent, its incidence in developing countries range between 20 to 30 per cent. This difference is due to the high prevalence of malnutrition, low birth weight and indoor air pollution in developing countries.<sup>2</sup>

Park K, Textbook of Preventive and social medicine(2015), Stated that Pneumonia is the single largest infectious cause of death in children worldwide. Pneumonia killed 920 136 children under the age of 5 in 2015, accounting for 16% of all deaths of children under five years old. Pneumonia affects children and families everywhere, but is most prevalent in South Asia and sub-Saharan Africa. Children can be protected from pneumonia, it can be prevented with simple interventions, and treated with low-cost, low-tech medication and care. For many countries the post Millennium Development Goal agenda has explicitly included ending preventable diarrhoea and pneumonia deaths as a priority action.<sup>3</sup>

According to Dorothy Marlow Textbook of Pediatrics mentioned that, Infections of the respiratory tract are perhaps the most common human ailment. While they are a source of discomfort, disability and a loss of time for most adults, they are a substantial cause of morbidity and mortality in young children and the elderly. Many of these infections run their natural course in older children and in adults without specific treatment and without complications. However, in young infants, small children and in the elderly, or in persons with impaired respiratory tract functions, it increases the morbidity and mortality rates. . As a part of treatment of a child it is the duty of health workers and treating physicians to advise mothers on management at home.<sup>4</sup>

O.P.Ghai, Textbook of paediatrics, discuss that Pneumonia may be classified anatomically as lobar or lobular pneumonia, bronchopneumonia and interstitial pneumonia and Bronchopneumonia define's as consolidation of alveoli or infiltration of the interstitial tissue with inflammatory cell or both .<sup>5</sup>

K.K.Gulani , Text book of community health Nursing second edition 2009, said that Acute respiratory infection caused by variety of bacteria and viruses. At a time there can be more than one infection. In developing countries measles and whooping cough are the important cause of ARIs. The risk factors which predispose for ARIs infections include climate conditions, poor nutrition , low birth weight, crowding, environment pollution etc.

Infection is air-borne and it is transmitted by direct (person to person) contact. The clinical signs and symptoms include running nose, sore throat, cough, fast breathing, difficulty in breathing, fever, noisy breathing (stridor), wheeze chest (whistling noise). Noisy breathing or stridor is there when there is obstruction in the air passage due to swelling of larynx, trachea or epiglottis. Wheeze chest is characterised by laboured breathing with audible whistling sound. It is due to narrowing of the air passage in the lungs. It indicates difficulty in breathing out.

According to national child survival and safe motherhood programme ARI is classified as under :

The young Infants (age less than 2 months)

(i) Very severe pneumonia

(ii) Severe pneumonia

(iii) No pneumonia

Child aged 2 months up to 5 years;

(i) Very severe pneumonia

(ii) Severe pneumonia

(iii) Pneumonia

(iv) No pneumonia but cough and cold.<sup>6</sup>

WHO Published Pneumonia Fact sheet in September 2016 shows that, In states and districts were having high infant and child mortality rates, acute respiratory infections (ARI) are the major causes of death. ARI is the major reasons for which children are brought to hospitals and health centres. Hospital records from states with high IMR show that upto 13 per cent of in-patient deaths in pediatric wards are due to ARI. The proportion of deaths due to ARI in the community is probably much higher as many children die at home.<sup>7</sup>

Article published by Dept. of Family Welfare. Govt. of India mentioned that Pneumonia is the single largest cause of death in children worldwide. Every year, it kills an estimated 1.4 million children under the age of five years, accounting for 18% of all deaths of children under five years old worldwide. Pneumonia is a form of acute respiratory infection that affects the lungs. The lungs are made up of small sacs called alveoli, which fill with air when a healthy person breathes. When an individual has pneumonia, the alveoli are filled with pus and fluid, which makes breathing painful and limits oxygen intake.<sup>8</sup>

Parul Dutta Textbook of Pediatrics edition 3<sup>rd</sup> states that the domiciliary management of children with respiratory infection consist of complete bed rest, increased fluid intake will help to keep throat and lining of nose moist, saline nose drop may be used to relieve congestion and obstruction in the nose, keep away the child from passive smoke and use of home remedies for cough and cold. Ex : Tulsi, Honey, Zinger, Hot drinks, etc. Warm or cool steam used near the child's bed may prevent or relieves the laryngeal spasm and cough and essential to maintenance of warm well ventilated environment. The preventive measures of respiratory infections includes hygienic practices related to personal and environmental hygiene, appropriate disposal of respiratory secretions, isolation of infected patients, maintenance of nutritional status, immunization to be completed as per schedule and special protection of children during weather variations to prevent cold.<sup>9</sup>

It was initiated in 1990, when C.S.S.M. programme was launched in 1992, the ARI control programme become the part and parcel of CSSM. Since 1997 it is part of RCH programme at the National Level.<sup>10</sup>

### BACKGROUND OF THE STUDY:

**“The future depends on what we do in the present”**

**--- Mahatma Gandhi**

Park K (2015), Preventive and social medicine says that, the child is the future of citizen of the nation . World's greatest resource for a future lies in the children of today. Today's children are tomorrow's citizen and leaders. Investment in the children develops is thus an investment in the country's future and improving the nation's quality of life.<sup>3</sup>

Assuma Bevi, Textbook of Pediatrics describes that the two major infections in children are acute respiratory infection and diarrhoeas. Acute respiratory infections (ARI) constitute a leading cause of morbidity and mortality in children. The World health assembly resolved in 1976 to give priority to this area. The ARI control programme was launched in India in the 1980s, about 750,000 children below 5 years of age die due to ARI in India every year, i.e. 2000 deaths /day or 85 deaths/hour. The risk of India child die with ARI is 30-75 times more than that of developed countries. ARI accounts for 14.3% death in infancy, 15.9% death in 1-5 years. A child suffers 5-8 EPISODES / years in urban areas and 2-3 episodes in rural area. ARI is the current leading cause of deaths in children and pneumonia rank first. Out of 2000 million episodes of ARI of which one out of 50 cases are pneumonia and 10-20% of them die. ARI comprises to 25-30% of hospital consultations

and 20-40 % of the total hospital admissions in children. ARI includes influenza, sinusitis, acute otitis media, nasopharyngitis, tonsillitis, laryngitis, epiglottitis, trachitis, bronchitis, bronchiolitis and pneumonia. preventable ARI are measles diphtheria, pertussis and child hood T.B.<sup>11</sup>

Parul Dutta, Textbook of Pediatric Nursing, specifies that Prevention of spread of infection is very important in under five children; careful hand washing is carried out when caring for children with respiratory infections. If the child has significantly elevated temperature, controlling the fever is important; moreover dehydration is always a hazard when children are febrile or anorexic, especially when vomiting or diarrhea is present. Loss of appetite is characteristic of children with acute infection. In most cases, children can be permitted to determine their own need for food. Under five with respiratory infection is irritable and difficult to comfort therefore, the family needs support, encouragement and practical suggestions concerning comfort measures and administration of medication.<sup>12</sup>

According to the UNICEF, Pneumonia-Diarrhoea-report 2016 mentioned that every year, more than 1.4 million children die from diarrhoea and pneumonia, particularly in settings with limited access to health services, nutritious foods, basic sanitation and hygiene. No child needs to die from pneumonia and diarrhoea; ending preventable child deaths from these diseases is within our grasp. The burden of child deaths due to pneumonia and diarrhoea has already halved since 2000, reducing from 2.9 million to 1.4 million deaths, owing to an overall decline in child deaths and some modest improvements in coverage of preventive and treatment interventions.<sup>13</sup>

Data sheet of UNICEF (2017) Discussed about world made substantial progress in reducing child mortality in the past few decades. Globally, the under-five mortality rate dropped from 93 deaths per 1,000 live births in 1990 to 41 in 2016. Progress in reducing child mortality has been accelerated in the 2000–2016 period compared with the 1990s – globally, the annual rate of reduction in the under-five mortality rate has increased from 1.9 per cent in 1990–2000 to 4.0 per cent in 2000–2016. The remarkable progress in improving child survival since 2000 has saved the lives of 50 million children under age 5 – children who would have died had under-five mortality remained at the same level as in 2000 in each country. The Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) sets forth an integrated framework of key interventions proven to effectively protect children's health, prevent disease and appropriately treat children who do fall ill with diarrhoea and pneumonia.<sup>14</sup>

Noordam, Aaltje Camielle et al (2017) established study on Association between caregivers' knowledge and care seeking behaviour for children with symptoms of pneumonia in six sub-Saharan African Countries. Treatment with effective antibiotics is crucial to prevent these deaths; nevertheless only 2 out of 5 children with symptoms of pneumonia are taken to an appropriate care provider in SSA. While various factors associated with care seeking have been identified, the relationship between caregivers' knowledge of pneumonia symptoms and actual care seeking for their child with symptoms of pneumonia is not well researched. Based on data from Multiple Indicator Cluster Surveys, assessed the association between caregivers' knowledge of symptoms related to pneumonia – namely fast or difficulty breathing – and care seeking behaviour for these symptoms. Hence analysed data of 4,163 children with symptoms of pneumonia and their caregivers. A Chi-square tests and multivariable logistic regression was performed to assess the association between care seeking and knowledge of at least one symptom. The study shows that in the Democratic Republic of the Congo and Nigeria there was a positive association between knowledge and care seeking ( $P \leq 0.01$ ), even after adjusting for key variables. These findings reveal an urgent need to increase community awareness of pneumonia symptoms, while simultaneously designing context specific strategies to address the fundamental challenges associated with timely care seeking.<sup>15</sup>

Meena Gyawali, (2016), A cross-sectional study was conducted to find out the status of knowledge about acute respiratory infection (ARI) among 384 respondents through direct face to face interview schedule. Non probability purposive sampling technique was used to select the sample of the study. Results: Most of the respondents 52.3% were in between the age group of 25 - 35 years. Majority of respondents 94.5% follows the Hindu religion. Most of the respondent 26.6% worked at private organization and 49.2% respondent had completed their secondary level of education. In the study it showed that 77.9% of women had no opportunity to take part in any training related to ARI. Statistically significant relationship was found on level of knowledge with education of mother ( $p=0.002$ ). The current study revealed that 83.9% of respondent had satisfactory level of knowledge and 10.7% had poor level of knowledge and only 5.5% had excellent level of knowledge regarding ARI. As mothers are the main caretakers of children and under- five year children are in close contact with their mother, any deviation in the health of children is first recognized by their mothers. Thus study shows that mother has significantly better knowledge on ARI with their educational status. So awareness program using

appropriate intervention i.e. radio, television, health campaign is necessary to increase the level of knowledge of mother.<sup>16</sup>

Pradhan SM ,Rao AP,et al July 2016 study on A cross-sectional study conducted on Knowledge and perception regarding childhood pneumonia among mothers of under-five children in rural areas of Udupi Taluk, Karnataka: among 460 mothers of under-five children. Interviewer-administered structured questionnaire was used for data collection and the sampling technique used was three-stage cluster sampling. The questionnaire was divided into three sections as socio-demographic profile, level of knowledge, and level of perception. The study found that mothers were predominantly secondary school graduates (32.6%) out of which, 93.7% were homemakers, 41.3% mothers had fair knowledge, and 41.5% had fair perception about pneumonia. Age and education level of mothers had a significant association with the knowledge as well as with perception. There was a significant association between level of knowledge and perception of childhood pneumonia among these mothers. Overall, mothers had fair knowledge and fair perception of childhood pneumonia. The lack of knowledge about simple signs and symptoms and factors related to pneumonia needs to be addressed.<sup>17</sup>

Mamata Jena ,(2014) carried out a study on Effectiveness of Information Booklet on Knowledge & Practice about Prevention of Pneumonia among Mothers of Under Five Children. Main objective of the study was to assess the effectiveness of information booklet on knowledge & practice about prevention of pneumonia among mothers of under five children admitted to paediatric ward of a selected hospital of Odisha. Pre-experimental one group pre test and post test research design was adopted in this study, 50 mothers who met the inclusion criteria were selected as study subjects by using non-probability purposive sampling technique. Result of the study shows that 52% of mothers had no knowledge regarding prevention of pneumonia. The 't' value for knowledge & practice test are 35.78 & 14.68 respectively which are much greater than  $t(49)$  at 0.05 significance level (2.01) in both indicating effectiveness of information booklet in increasing knowledge & knowledge on practice. The calculated 'r' value of post test knowledge and practice scores i.e. 0.2783 indicating positive significant relationship i.e.  $r(48) > 0.273$  significance at 0.05 level.<sup>18</sup>



**NEED OF THE STUDY**

**“God made mothers because he could not be everywhere at all times .”**

**(Prem Mehra)**

Ganesh Kumar S,(2018),A community-based cross-sectional study was conducted in urban and rural areas of Puducherry, India. Data were collected from 509 parents of under-five children regarding ARI incidence along with socio-demographic and selected associated factors.Overall prevalence of ARI was observed to be 59.1%, with prevalence in urban and rural areas being 63.7% and 53.7%, respectively. Bivariate analysis indicated that overcrowding, place of residence, and mother's education were significantly associated with ARI. Multiple logistic regression analysis suggested that presence of overcrowding (adjusted odds ratio [AOR] = 1.492), urban residence (AOR = 2.329), and second birth order (AOR = 0.371) were significant predictors of ARI. Hence concluded that The prevalence of ARI is high, particularly in urban areas. Improvement of living conditions may help in reduction of burden of ARI in the community.<sup>19</sup>

UNICEF publication in 2016 Statistic shows that the pace of progress on child and maternal health and survival can increase or decrease as a result of policy choices made by governments and the international community in the coming years. However, if current trends continue, in 2030:There will be 3.6 million deaths of children under age 5 in that year alone. A total of 69 million such deaths will have occurred between 2016 and 2030,74 with sub-Saharan Africa accounting for around half of these and South Asia for another third.Five countries will account for more than half of the global burden of under-five deaths: India (17 per cent), Nigeria (15 per cent), Pakistan (8 per cent), the Democratic Republic of the Congo (7 per cent) and Angola (5 per cent).<sup>76</sup> . All but five of the 30 countries with the highest under-five mortality rates will be in sub-Saharan Africa.Some 620 million children will have been born in that region between 2016 and 2030<sup>78</sup> – about 30 per cent of the world total.<sup>79</sup> It is the only region expected to see growth in its under-five population, which is likely to expand by over 40 million.<sup>80</sup> Nigeria alone will account for around 6 per cent of all births globally.

- The global maternal mortality rate will be around 161 deaths per 100,000 live births – still five times the level for high-income countries in 1990.
- Pneumonia will remain the second biggest killer of children under age 5, and preterm birth complications will remain the first<sup>13</sup>



Bulletin of the World Health Organization 2016 mentioned 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.<sup>20</sup>

Ericson, Rimple (January 2012) researched study to assess the effectiveness of structured teaching programme on prevention and management of pneumonia in children among mothers. A quantitative , Quasi experimental Non-Equivalent control group design .Mothers whose children were admitted. Self structured questionnaire. Pilot study - on eight mothers. Purposive sample 60 mothers- 30 in experimental ,30 in control group. To prevent contamination experimental group was taken from Paediatric Ward and Private Ward and control group was taken from Paediatric Surgical I.C.U and Postnatal Ward. Pre test taken from both control and experimental group. Self structured teaching was given to experimental group .After 72 hours of teaching post test was taken from both experimental and control group. teaching programme was highly effective in enhancing knowledge of mothers on prevention and management of pneumonia in children.<sup>21</sup>

Fisk CM, Crozier SR, (2011) carried study on “Breast feeding and reported morbidity during infancy”.

Finding from the Southampton women’s survey. In a prospective birth cohort study assessed the relationship between the duration of breast feeding and the prevalence of respiratory tract infections. During the first year of life in 1764 infants, 81% of the infants were breastfed initially, and 25% were breastfed upto 6 months. There were graded decreases in the prevalence of respiratory symptoms between birth and 6 months as breastfeeding duration increased. Data provides strong support for a protective role of breast feeding against respiratory infections in infancy.<sup>22</sup>

William BC, Gouws E, Boschi-Pinto et al (2002) Article on Estimates of world wide distribution of child deaths from ARIs, examine that Pneumonia is a major child killer in the developing world; to prevent such deaths, mothers must be able to differentiate pneumonia from common cold. Local concepts regarding these illnesses were studied by interviewing 315 mothers of young children in their homes in Punjabi villages in 1994. Mothers described pneumonia differently from cough-and-cold but only a few volunteered fast breathing as a sign of pneumonia. Both illnesses were thought to be caused by “coldness”, and were initially treated with “heat-producing” home remedies and feeding was continued in both. Spiritual healers were not consulted for cough-and-cold or pneumonia. Virtually all mothers said that allopathic medicines were necessary for both illnesses and 2/3<sup>rd</sup> said that if a child did not improve after 2 days of a given medicine, they would change the medicine and/ or the doctor.<sup>23</sup>

So the researcher felt that assessing the mothers’ knowledge and practice on management of children with acute respiratory infection is essential and preparing a guide sheet on it will be of great use for the mother’s in prevention of bronchopneumonia of children with acute respiratory infection.

## **PROBLEM STATEMENT**

“A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information Booklet.”

## OBJECTIVES

1. To assess the knowledge & practices regarding prevention of bronchopneumonia among the mothers of under five children.
2. To identify the co-relationship between the knowledge and practices with demographic variables.
3. To develop and provide Information booklet prevention of bronchopneumonia for mother's of under five children's.

## OPERATIONAL DEFINITIONS:-

### 1.Assess:

According to Oxford dictionary, Assess means to evaluate or estimate the nature.

In this study, it refers to statistical measurement of knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children.

### 2.Knowledge:

According to Oxford dictionary, "Knowledge" means facts, information, and skills acquired through experience or education.

In this study "Knowledge" refers to correct verbal responses obtained from the mothers of under five children with the help of a structured questionnaires regarding prevention of child with A.R.I. Pneumonia and prevention of Bronchopneumonia .

### 3. Practices:

According to oxford dictionary ,it means the actual application or use of an idea , belief ,or method ,as opposed to theories relating to it.

In this study "Practices" refers to verbal response of the mothers of under five children listed in the self reported checklist regarding practices or the home management of acute respiratory tract infection.

### 4.Prevention:

According to oxford dictionary it means the act of preventing something.

In this study it refers to those activities performed by mothers in order to prevent Respiratory infection and its further complications i.e. Bronchopneumonia.

## 5. Bronchopneumonia:

According to Oxford dictionary, it means inflammation of the lungs, originating in the bronchioles .

In this study Researcher define bronchopneumonia means children who are suffering from Acute lower respiratory tract infection.

## 6. Mother's :

According to Oxford dictionary, mother is an individual who care and nurture baby since before birth, till whole life ..

In this study, as researcher defines ,mother's means a female guardian of children under the age of 5 yrs who's children are admitted in hospital, attending OPD,CWC.

## 7. Metropolitan city :

According to oxford dictionary , metro is region consisting of a density urban area surrounding territories sharing industry ,infrastructure housing.

In this study ,metropolitan city refers to large and densely populated area of urban city.

## 8. Information booklet:

According to oxford dictionary information booklet means , A small, thin book with paper covers, typically giving information on a particular subject.

In this study Information booklet means thin book with papers covers the information regarding knowledge and management of children with acute respiratory infection for creating awareness in mothers.

## SCOPE OF THE STUDY

1. The study will help to reduce the incidence of bronchopneumonia among under five children .
2. The finding can be utilization by the local public health department for planning health promotional programme for under five children.
3. This study will provide guideline for mothers of under five regarding prevention of bronchopneumonia.
4. Mothers of under five will develop confidence in caring of their child during respiratory infection .
5. The study will generate the future hypothesis to conduct the longitudinal study
6. Finding can further be used by other researchers.
7. The same study can be conducted on large scale.
8. The findings of the study can be used as reference for student nurses in educational field.

**RESEARCH HYPOTHESES:-**

H<sub>1</sub>:- There will be significant association between knowledge and practices with selected demographics variables.

H<sub>2</sub> -- There is significant difference between the groups of demographic variable with respect to knowledge and practices.

**ASSUMPTIONS**

1. Mothers of under five may have some knowledge and do wrong practices regarding prevention of bronchopneumonia .

2. Mothers of under five will develop confidence in giving care to child with respiratory infection.

3. Information booklet will enhance the knowledge and improves better practices regarding prevention of bronchopneumonia.

**LIMITATIONS**

- The study is limited to mothers of under five ,in selected hospitals of metropolitan city.
- Only mothers of under five who's children's are admitted in Pediatric wards and attending OPD and CWC.
- Sixty selected Mothers of under five only.

**ETHICAL ASPECTS**

Research problem was approved by Institutional Ethical Committee.

- Investigator had thorough knowledge about Prevention of Bronchopneumonia.
- Permission was obtained from hospital authority.
- Informed consent of the study subject /sample had been taken prior to the study.
- Confidentiality of the data is maintained and also the privacy of the subject is maintained.
- Self respect and dignity of the subject has been maintained during the study.

## CONCEPTUAL FRAMEWORK

The conceptual framework is inter-related concepts or obstructions that assembled together in some rational scheme by virtue of their relevance to a common theme. The conceptual framework helps to stimulate research and the extension of knowledge by providing both direction and inputs.<sup>25</sup>

The conceptual framework is the precursor of a theory. It provides broad perspective for nursing practice, research and education. Conceptual Framework plays several inter-related roles in the progress of science. Their overall purpose is to make scientific and meaningful findings and also to generalize the findings.<sup>25</sup>

The present study is focused on determining the extent of anemia among the adolescent girls at selected schools in rural areas.

The conceptual framework of this study is based on 'Health Belief Model' by Hochbaum, Rosenstock, and Kegels (1950), that explain and predicts health behavior. This is done by focusing on the attitudes and beliefs of individuals. The HBM is most commonly used theory in health education and health promotion. The underlying concept of the health belief model is that health behavior is determined by personal beliefs or perceptions about disease and the strategies available to decrease its occurrence personal perception is influenced by the whole range of interpersonal factors affecting health behavior.<sup>71</sup>

The following are components of HBM.

- 1. Individual perception**
- 2. Modifying factors**
- 3. Likelihood of Action**

### **1. Individual perception**

**Perceived seriousness** - Mc Cormick Brown, 1999 said that the construct of perceived seriousness speaks to individual beliefs about the seriousness or severity of a disease. while the perception of seriousness is often based on medical information or knowledge, it may also come from beliefs a person has about the difficulties a disease would create or the effect it would have on his/her life in general.<sup>71</sup>

**Perceived Susceptibility** - Personal risk or susceptibility is one of the more powerful perceptions in prompting people to adopt healthier behaviors. The greater the perceived risk the greater the likelihood of engaging in behaviors to decrease the risk.

It is only logical that when people believe they are at risk for a disease, they will be more likely to do something to prevent it from happening.<sup>71</sup>

According to stretcher & Rosenstock, 1997 when the perception of susceptibility is combined with seriousness, it results in perceived threat .if the perception of threat is a serious disease for which there is real risk, behavior often changes.<sup>71</sup>

In the present context of the study perceived susceptibility is the Mothers of under five children were perceived seriousness and susceptibility of Acute respiratory infection and its complication in future and that will be perceived the treatment of Bronchopneumonia among Under five children.

### **Percived threat**

The combined impact of perceived seriousness and perceived susceptibility refers to the sample selected for the study i.e.Mothers of under five children .To identify the perceived therat of mothers , Assess their knowledge and practices a structured interview schedule and self reported checklist is developed for the study.

## **2. Modifying factors**

It means how serious is the illness from which client suffer .such perception is influenced by the psychological factors, recovery of illness, advice of close relatives as well as demographic factors.<sup>71</sup>

In the present context of the study modifying factors in this study are demographic variables such as Age ,No of under five children ,type of house, Monthly income and Education, Source prefer to cook food and previous knowledge of the Mothers of under five

**Cues of action** - The HBM suggest that behavior is also influenced by cues to action .cues to action are events, people or things that move people to change their behavior.<sup>71</sup>



In the present context of the study Cues of action is the researcher provided information booklet on prevention of bronchopneumonia among under five children and the mothers of under five were ready to read it and follow the instructions to prevent bronchopneumonia.

### **3. Likelihood of Action**

#### **Perceived Benefits**

The construct of perceived benefits is a person's opinion of the value or usefulness of a new behavior in decreasing the risk of developing a disease. Perceived benefits play an important role in the Adoption of secondary prevention behavior.<sup>71</sup>

In this study Researcher Assessment of knowledge by administering semi structure questionnaires and practices by self reported checklist.

#### **Perceived Barrier**

Since change is not something that comes easily to most people, the last construct of the HBM addresses the issue of perceived barriers to change. this is individuals own evaluation of the obstacles in the way of him or her adopting a new behavior of all constructs, perceived barriers are the most significant in determining behavior change said by Janz & Becker, 1984 According to center for disease control and prevention, 2004 in order for a new behavior to be adopted, a person needs to believe the benefits of the new behavior outweigh the consequences of continuing the old behavior.<sup>71</sup>

**Self-efficiency** - Self-efficiency is the belief in one's own ability to do something People generally do not try to do something new unless they think they can do it. If someone believes a new behavior is useful (perceived benefits), but does not think he or her she is capable of doing it (perceived barrier), chances are that it will not be tried.<sup>71</sup>

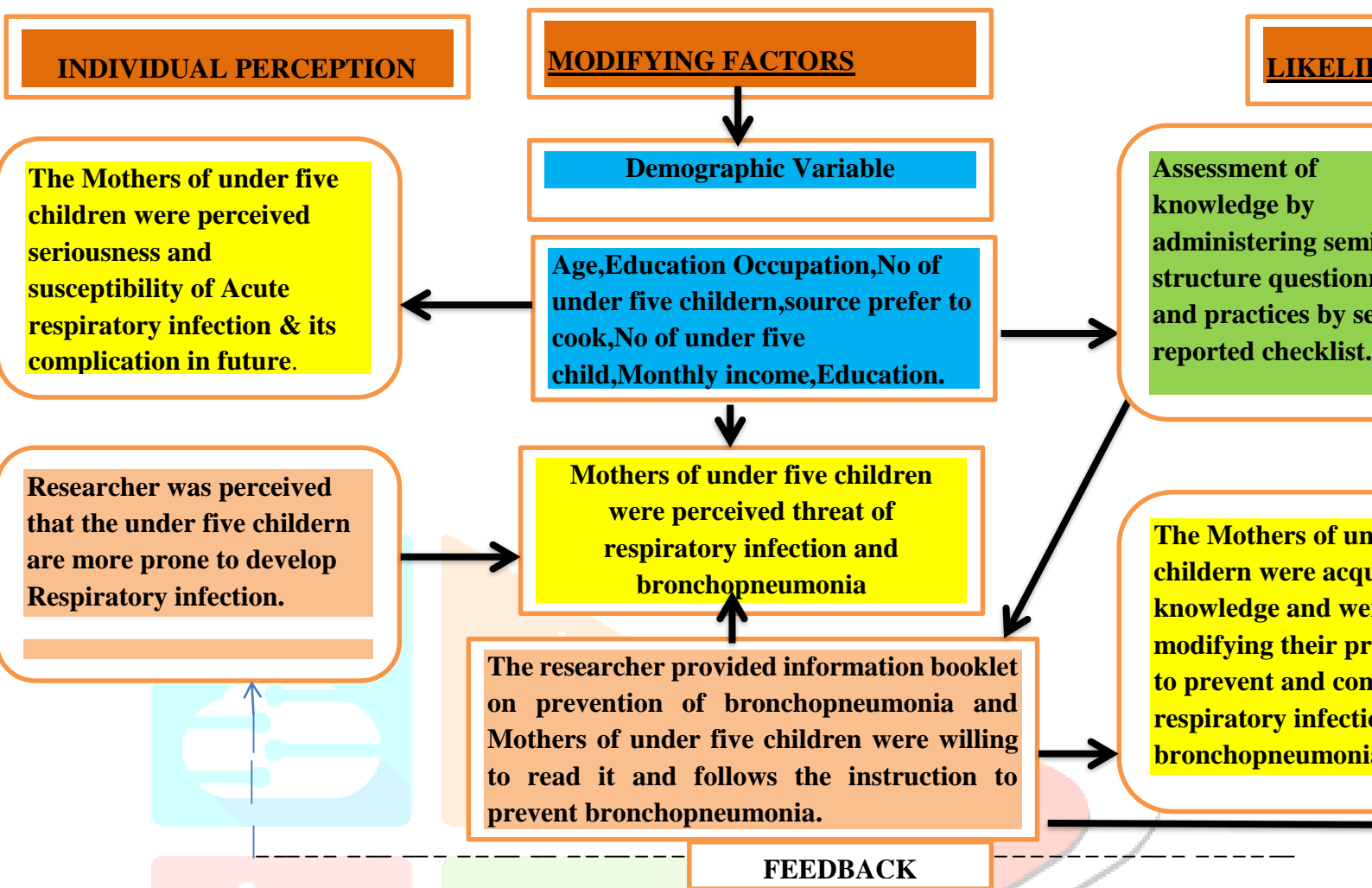
In the present context of the study likelihood of action is the Mothers of under five children perceived benefits of information booklet on the Prevention of bronchopneumonia and were adopted the healthy lifestyle and good practices to prevent Acute respiratory infection among their under five children.

## CONCLUSION

In the present study with reference to above articles, journals, textbook and personal experiences, investigator felt strong view to assess the knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children .As children are vital to the nation's present and its future. Children have begun to be recognized not only for who they are today but for their future roles in creating families, powering the workforce, and making Indian democracy work. Mounting evidence that health during childhood sets the stage for adult health not only reinforces this perspective, but also creates an important ethical, social, and economic imperative to ensure that all children are as healthy as they can be. Healthy children are more likely to become healthy adults and that is why there has been an increased focus on issues that affect children and on improving their health. So it is very important to take care of child when he or she is sick to make their future bright.



**CONCEPTUAL FRAMEWORK**



**Fig. 1: Conceptual framework based on Health Belief model by Hochbaum Rosenstock and Kegels (1950)**

## CHAPTER II

## REVIEW OF LITERATURE

“Literature is the art of discovering something extraordinary about ordinary people, and saying with ordinary words something extraordinary.”

**-Boris Pasternak**

According to Basavanthappa B.T, “Review of literature is a key step in research process”. Review of literature refers to an extensive, exhaustive and systematic examination of publications relevant to the research project. The review of literature is defined as a broad, comprehensive in depth, systematic and critical review of scholarly publications, un-published scholarly print materials, audio visual materials and personal communications.<sup>24</sup>

According to Sharma S. K, “A literature review is a body of text that aims to review the critical points of knowledge on a particular topic of research.” A literature review is an evaluative report of information found in the literature related to a selected area of study. The review describes summaries, evaluates and clarifies this literature. It gives a theoretical base for the research and helps to determine the nature of research.<sup>25</sup>

**Review Literatures are cited under following headings:**

#### **A) STUDIES IN INCIDENCE AND PREVALENCE OF ACUTE RESPIRATORY INFECTION**

Ramini v.et al. (2016) conducted a longitudinal study on acute respiratory infection among under five children at urban slums of Gulbarga city. A child with cough, cold or fever singly or in combination was considered the criteria for recognition of pneumonia ,one year period , out of the 400 surveyed, ARI was detected among 109 children giving an incidence of 27.25%. Among these, upper respiratory tract infection (URTI) was found among 19.25% and lower respiratory tract infection (LRTI) among 8%. ARI was observed among 38.04% of infants, 37.84% of 2-3-year-old children, 36.87% of boys, 40.43% of children born to illiterate father’s, 35.77% of ses class iv & 40.79% of ses class v, and 41.89% of children with family history of respiratory illness. All these data were found to be statistically significant. High rates of ARI were also observed among 41.36% of children living in households with firewood fuel usage, 35.04% of children with pets in the household, 34.82% of children with delayed milestones, 53.85% of children with grade iv and 66.67% of

children with grade v malnutrition. More episodes occurred during winter months of the year (oct – jan). During the follow-up phase of study done on a cohort of 112 children for a period of one year, an attack rate of 3.27 episodes/child/year was observed. community education programs should focus on addressing specific issues viz. Identification of respiratory illness, simple case management, proper immunization practices, breast feeding of infants & nutrition of child and reduction of domestic air pollution.<sup>26</sup>

Ekram M. Abdel Khalek, (2016) et al Article on acute respiratory tract infections in children under 5 years of age in Upper Egypt Acute respiratory tract Untreated ARIs often lead to pneumonia, which is more serious and causes 15% of under five deaths in Egypt. the identified the prevalence of ARIs in children under 5 years of age in Upper Egypt and its determinants. Secondary analysis was done in the study based on data sets of Egypt Demographic Health Survey (EDHS), 2008. The study involved 4,745 children under 5 years of age living in Upper Egypt Governorates who included in EDHS, 2008. The mean age of the studied children was 28.27 months. It was found that 18.8% of the children had cough during the two weeks period before the survey. Medical consultations were sought from health care providers among 90% of children. Nearly two thirds of the children were given any drugs. Cough drugs and oral antibiotics were given most frequently. Also, 30% of children did not receive any medical treatment .Children aged 6-23 months and male children were affected most likely with ARIs. Immunization status of the studied children showed significant association with ARIs. Children aged 6-23 months and male children were affected most likely with ARIs. Paediatricians and general practitioners should take their role in proper counselling of caregivers on the proper child care at home.<sup>27</sup>

Ritvik amarchand et al (2015) researched on cohort of children aged 0–10 years was established in four villages in a north indian state of haryana from august 2012 onwards. Trained health workers conducted weekly home visits to screen children for acute respiratory infection (ARI) defined as one of the following: cough, sore throat, nasal congestion, earache/discharge, or breathing difficulty. Nurses clinically assessed these children to grade disease severity based on standard age-specific guidelines into acute upper or lower respiratory infection (AURI or ALRI) and collected nasal/throat swabs for pathogen testing. The first year results show that ARI incidence in 0–10 years of age was 5.9 (5.8–6.0) per child-year with minimal gender difference, the ALRI incidence in the under-five age group was higher among boys (0.43; 0.39–0.49) as compared to girls (0.31; 0.26–0.35) per child year. Boys had 2.4 times higher ARI-related hospitalization rate as compared to girls. ARI impose a significant burden on the children of this cohort. This study platform aims to provide better evidence

Majumdar, Veera Kumar et al (2015), conducted a community-based cross-sectional study on Prevalence of acute respiratory infection among under-five children in urban and rural areas of puducherry, India. Data were collected from 509 parents of under-five children regarding ARI incidence along with socio-demographic and selected associated factors. Overall prevalence of ARI was observed to be 59.1%, with prevalence in urban and rural areas being 63.7% and 53.7%, respectively. Bivariate analysis indicated that overcrowding, place of residence, and mother's education were significantly associated with ARI. Multiple logistic regression analysis suggested that presence of overcrowding (adjusted odds ratio [AOR] = 1.492), urban residence (AOR = 2.329), and second birth order (AOR = 0.371) were significant predictors of ARI. The prevalence of ARI is high, particularly in urban areas. Improvement of living conditions may help in reduction of burden of ARI in the community.<sup>29</sup>

Rudan et al (2013), Article study on Global estimate of the incidence of clinical pneumonia among children under five years of age. With the finding that estimate of the median incidence from those studies was 0.28 episodes per child-year (e/cy). The 25–75% interquartile range was 0.21–0.71. They assessed the plausibility of this estimate using estimates of global mortality from acute respiratory infections and reported case fatality rates for all episodes of clinical pneumonia reported in community-based studies or the case-fatality rate reported only for severe cases and estimates of the proportion of severe cases occurring in a defined population or community. The overlap between the ranges of the estimates implies that a plausible incidence estimate of clinical pneumonia for developing countries is 0.29 e/cy. This equates to an annual incidence of 150.7 million new cases, 11–20 million (7–13%) of which are severe enough to require hospital admission. In the developed world no comparable data are available. However, large population-based studies report that the incidence of community-acquired pneumonia among children less than five years old is approximately 0.026 e/cy, suggesting that more than 95% of all episodes of clinical pneumonia in young children worldwide occur in developing countries.<sup>30</sup>

Dhananjaya Sharma, Kumaresan Kuppasamy, et al (2013) carried out study on Prevalence of acute respiratory infections (ARI) and their determinants in under five children in urban and rural areas of Kancheepuram district. A community-based, cross-sectional study done, covering a study population of 500 under five children. Descriptive statistics was done and chi-square was used as test of significance. Results shows that overall, prevalence of ARI was found to be 27%. ARI was noticed more among low social class (79.3%), illiterate mothers (37.8%), those living in kutchu houses (52.6%), overcrowded houses (63.7%), use of smoky fuel for cooking (67.4%), inadequate cross ventilation (70.4%), history of parental smoking (55.6%), low birth weight children (54.8%), and malnourished children (57.8%). Rural children (62.2%) were more affected than urban children. The present study had identified low socioeconomic status, poor housing conditions, cooking fuel used, birth weight, and nutritional status as important determinants for ARI. Interventions to improve these modifiable risk factors can significantly reduce the ARI burden among children<sup>31</sup>

Suliadi F. Sufahani et al (April 2012 ) proposed study on an Analysis of the Prevalence of Pneumonia for Children under 12 Year Old in Tawau, Malaysia .The objectives of study are to develop a summary on the prevalence of pneumonia and to analyze the best practice to prevent this illness and lastly to determine an overview of which area that is widely affected by pneumonia. The results can assist doctors and the government to take major precautions and preventive measures efficiently to the full extent. This paper presents a descriptive analysis of the data, which are retrieved from the medical reports at the Tawau General Hospital. Through the findings, pneumonia is widely spread among young children under 12 years old. There are more than one major factor that leads to this critical illness, such as family background, genetic and environment. Therefore, the government, doctors and parents should take major steps to prevent children suffering from pneumonia.<sup>32</sup>

Pai MS,(2004), A descriptive study was conducted in Udipi among group of 110 mothers having infants above three months of age to find out the occurrence of ARI among infants and knowledge of mothers regarding acute respiratory infections and determine the association between ARI and selected demographic variables. It was observed that majority of children (60.9%) had ARI 4-6 times in past 3 months. The findings of the study showed that majority of mothers (71.2%) had an average knowledge about ARI.<sup>33</sup>



Acharya D, Prasanna KS, Nair S, et al (2003) conducted a study on acute respiratory infections in children a community based longitudinal study in South India to assess the incidence and prevalence of acute respiratory infection. The study revealed that over all incidence of ARI was 6.42 episodes per child, per year. 8.2 per cent developed pneumonia and 0.51 per cent had severe pneumonia. The incidence was almost same in male and female children, no significant difference in incidence among vARiOUS age groups. Higher incidence was among infants ( $P < 0.00002$ ) and children who lived in poor housing with smoke producing conditions, suffered more frequently.<sup>34</sup>

## **B) STUDIES RELATED TO RISK FACTORS.**

Pranav g. Jawade (2017) conducted A hospital based cross sectional study on Acute respiratory infections (ARI) and Malnutrition in children aged 0-14 years have tremendous burden on the health care sector of developing nations including India.. Children were clinically assessed and diagnosis was made as URTI or LRTI Also anthropometry was performed and accordingly children were divided into categories of no malnutrition (NM), severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) in ‘under 5’ years age children according to WHO guidelines, whereas children aged ‘above 5’ years were categorized as per the IAP guidelines. It was observed that most of the mothers of children were illiterate with inadequate or absent ventilation and use of biomass fuels (chulha) for cooking purpose in households of rural children. The proportion of malnutrition was found to be equal in Under 5 children. In ‘above 5 years’ age study subjects, 52.4% of urban study subjects were normal as compared to 16.7% of rural study subjects. Study implies that ARI and Malnutrition definitely is more prevalent in the pediatric population. Prevalence of URTI was found to be on a higher side in the rural population and LRTI prevalence was found to be higher in the urban population. Similarly, the prevalence of malnutrition was almost similar in ‘Under 5’ aged children, whereas the prevalence of malnutrition in ‘Above 5’ aged children was higher in the rural population than urban population.<sup>35</sup>

Tazinyaaa, (2014-15) Researched on A cross-sectional analytic study of risk factors for acute respiratory infections in children under five years attending the bamenda regional hospital in cameroon, The study aimed at determining the proportion of acute respiratory infections and the associated risk factors in children under 5 years visiting the bamenda regional hospital which involving 512 children under 5 years was carried out from December 2014 to February 2015. With consecutive convenient sampling method. Used structured

questionnaire to collect data. The proportion of ARIs was 54.7% (280/512), while that of pneumonia was 22.3% (112/512). Risk factors associated with ARI were: HIV infection  $or_{adj}$  2.76 [1.05-7.25], poor maternal education (none or primary only) 2.80 [1.85-4.35], exposure to wood smoke 1.85 [1.22-2.78], passive smoking 3.58 [1.45-8.84] and contact with someone who has cough 3.37 [2.21-5.14]. Age, gender, immunization status, breastfeeding, nutritional status, father's education, parents' age, school attendance and overcrowding were not significantly associated with ARI. The proportion of ARI is high and is associated with HIV infection, poor maternal education, exposure to wood smoke, passive cigarette smoking, and contact with persons having a cough. Control programs should focus on diagnosis, treatment and prevention of ARIs.<sup>36</sup>

Yingxi chen (2014), researched on risk factors for acute respiratory infection in the Australian community, used a national survey of 7578 randomly selected respondents in 2008–2009 to identify the risk factors of ARI. A case was defined as a person experiencing cold or flu with one or more symptoms of: fever, chills, sore throat, runny nose, or cough in the previous four weeks. There were 19.8% (1505/7578) of respondents who reported ARI in the four weeks prior to the survey. Age was an independent risk factor for ARI, with the risk of acquiring ARI decreasing as age increased. Respondents reporting asthma (or 1.4, 95%ci: 1.2–1.7) or having someone in their house attending childcare (or 1.6, 95%ci: 1.2–2.1) were more likely to report ARI. It is important to identify ways of interrupting transmission of ARI amongst children. Improving identification of risk factors will enable targeted interventions for this exceedingly common syndrome.<sup>37</sup>

Dickens Onyango, et al (2012) conducted study on Risk factors of severe pneumonia among children aged 2-59 months in western Kenya: A case control study. Done on children aged 2 to 59 months with severe pneumonia or very severe pneumonia and controls were those with non-severe pneumonia as defined by the integrated management of childhood illnesses classification. Given structured questionnaires to mothers of participants to obtain data on socio-demographics, nutritional status and potential environmental risk factors. Data was analyzed using Epi Info; significance level was set at 0.05., recruited 103 cases and 103 controls. The median age of cases was 14.0 (Range 3-58) months and of controls 14.0 (Range 2-54) months. Comorbidity (Odds Ratio = 3.8, Confidence Interval 1.4-10.6), delay in seeking treatment for three days or more (Odds Ratio = 2.3, Confidence Interval 1.2-4.2) and contact with upper respiratory tract infection (Odds Ratio = 2.7, Confidence Interval 1.1-6.5) were independent risk factors for severe pneumonia. Receiving antibiotics at home (Odds Ratio = 0.4, Confidence Interval 0.2-0.8) was protective. Co-morbidity, contact with upper respiratory

tract infection and delay in seeking treatment are risk factors for severe pneumonia, and recommend health education regarding appropriate health seeking and engaging community health workers in pneumonia prevention, control and treatment.<sup>38</sup>

M. B. Sudharsanam (2006) conducted study on risk factors for sick children in a fisherman community in pondicherry. It was a case control carried from march 2004 to june 2004 in the under five population of the village. Enumeration list done for pulse polio immunization during january 2004 was used for enlisting the children. All children between 2 and 59 months of age were enrolled and the entire population was screened for sickness without any sampling. A sick child was defined as any child between 2 and 59 months, with fever (lasting at least 2 days) or acute respiratory infection or earache or diarrhea (2 episodes of watery loose stools for at least 1 day). A pre-tested interview schedule was used .Details were collected from the father or other members of the family only if the mother was not available at the time of the interview. Out of 441 children, 406 were contacted for sickness screening by enquiring the mother. In those houses, which were locked at the time of the first visit, attempt was made to contact the children by making at least two more visits to the house in the next one week. In spite of these only 406 children could be met and 35 children (8%) were excluded from study. None of the parents denied participating in the study. They selected an age, matched child (+/- 2months) control without sickness in the past 2 weeks for each case. Details of information collected from both cases and controls .Results of study was , sickness was found more in 3-12 and 13-24 months (both contributing to 17.9% of cases) and least in 37-48 months (8% of cases). The prevalence of sickness in the study population was 14%. Prevalence of ARI was the highest followed by that of diarrhea and then fever. Children of fathers who worked outside the village were at 2.3 times higher risk than of fisherman children. Children in whom any other member in the same family had similar illness within the previous 2 weeks were at a 31 fold higher risk of being sick than who did not have. Children with worm infestation were at 4 times higher risk of being sick than children without worm infestation. Children of mothers who did not practice any method of contraception were at three times higher risk than children of mothers who practiced any method of contraception. Other factors considered were not significant.<sup>39</sup>

**C) REVIEW RELATED TO LOWER RESPIRATORY TRACT INFECTION**

Liu, Yonglin et al. (Jan 2018) conducted study on “Impact of Meteorological Factors on Lower Respiratory Tract Infections in Children.” With the aim ,to evaluate retrospectively the relationship between meteorological factors in Shenmu County, and the incidence of lower respiratory tract infections in children. Meteorological data were collected The association between meteorological factors and rate of hospitalization due to lower respiratory tract infections was investigated; the total hospitalization rate was compared with the rate of lower respiratory tract disease-related hospitalizations. Lower respiratory tract infection hospitalization rate was significantly correlated with air temperature ,atmospheric pressure, rainfall and relative humidity, but not with hours of sunlight or wind speed. Using multiple linear regression, lower respiratory tract infection hospitalization rate decreased with a gradual increase in air temperature and relative humidity and concluded that the Air temperature and relative humidity were major influencing meteorological factors for hospital admissions in children due to lower respiratory tract infections.<sup>40</sup>

Sivani Jonnalagadda, (2017) study conducted on etiology of severe pneumonia in children .This observational study was part of a randomized, double blind, placebo-controlled clinical trial conducted among children aged 2–59 months with severe pneumonia in Quito, Ecuador. Nasopharyngeal and blood samples were tested for bacterial and viral etiology by polymerase chain reaction. Risk factors for specific respiratory pathogens were also evaluated. Among 406 children tested, 159 (39.2%) had respiratory syncytial virus (RSV), 71 (17.5%) had human metapneumovirus (hMPV), and 62 (15.3%) had adenovirus. Streptococcus pneumoniae was identified in 37 (9.2%) samples and Mycoplasma pneumoniae in three samples. The yearly circulation pattern of RSV overlapped with S. pneumoniae, ( $P = 0.03$ ) with most cases occurring in the rainy season. In multivariable analysis, risk factors for RSV included younger age and being underweight. Maternal education, pulse oximetry, and rales were associated with influenza A. Younger age and elevated baseline respiratory rate were associated with HPIV-3 infection. These results indicate the importance of RSV and influenza, and potentially modifiable risk factors including undernutrition and future use of a RSV vaccine, when an effective vaccine becomes available.<sup>41</sup>

Zec SL, Selmanovic K, Andrijic NL, et al ,( 2016) conducted study on Evaluation of Drug Treatment of Bronchopneumonia at the Pediatric Clinic in Sarajevo which has aims that to determine the most commonly used antibiotics at the Pediatric Clinic in Sarajevo and concomitant therapy in the treatment of bronchopneumonia with has study design of retrospective and included a total of 104 patients, hospitalized in pulmonary department of the Pediatric Clinic They found First and third generation of cephalosporins and penicillin antibiotics were the most widely used antimicrobials, with parenteral route of administration and average duration of treatment of 4.3 days. Concomitant therapy included antipyretics, corticosteroids, leukotriene antagonists, agonists of  $\beta_2$  adrenergic receptor. In addition to pharmacotherapy, hospitalized patients were subjected to a diet with controlled intake of sodium, which included probiotic-rich foods and adequate hydration. Recommendations for further antimicrobial treatment include oral administration of first-generation cephalosporins and penicillin antibiotics. The Results of the drug treatment of bronchopneumonia at the Pediatric Clinic of the University Clinical Center of Sarajevo are comparable to the guidelines of the British Thoracic Society. It is necessary to establish a system for rational use of antimicrobial agents in order to reduce bacterial resistance.<sup>42</sup>

Swati Kambli (2014) conducted study Knowledge of Bronchopneumonia among Caretakers of Infants conducted study on Fifty consecutive caretakers of bronchopneumonia attending in and outpatient services were interviewed using questionnaire to determine the knowledge of caretakers of infants diagnosed with bronchopneumonia. A cross sectional survey was conducted to assess the knowledge of caretakers regarding definition, etiology, risk factors, pathophysiology, myths and misbelieves, prevention and management of infants with Bronchopneumonia. 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. It is necessary to strive hard to spread awareness about the preventive measures of Bronchopneumonia among caretakers of infants.<sup>43</sup>

Zunera Gilani (2000-10) A Literature Review on Survey of Childhood Pneumonia. The aim to describe the current landscape of recent pneumonia etiology studies in children under 5 years of age in the developed and developing world, as ascertained by a literature review of relevant studies with data since the year 2000 and a survey of researchers in the field of childhood pneumonia. Collected information on the study population,

study design, case definitions, laboratory samples and methods and identified pathogens. A literature review identified 88 studies with child pneumonia etiology results. As of June 2010, our survey of researchers identified an additional 65 ongoing and recently completed child pneumonia etiology studies. This demonstrates the broad existing context into which the PERCH study must be placed. However, the landscape analysis also reveals a multiplicity of case definitions, levels of clinician involvement, facility types, specimen collection, and laboratory techniques. It reinforces the need for the standardization of methods and analyses for present and future pneumonia etiology studies in order to optimize their cumulative potential to accurately describe the microbial causes of childhood pneumonia.<sup>44</sup>

Gupta N, Jain SK. Ratnesh (2007) comprehensively studied that “An evaluation of acute respiratory infections control programme in a Delhi Slum”. A study conducted in this Urban slum covering 1307 under five children during 2004. 191 (14.67%) of 1307 children had an attack of acute respiratory infection in the preceding two weeks. The common symptoms of acute respiratory infection cases were mild running nose (78%), Cough (76.4%) and Fever (45.4%) only 7 (4%) had fast breathing acute respiratory infections are mostly mild/self limiting but only 16% of care takers perceived so and doctors also prescribed medicines. Result concluded that though aware of danger signs of ARI., care takers were still seeking medical advices for mild cases of ARI and doctors prescribing drugs.<sup>45</sup>

Thomas Kovesi (2007) researched on Indoor air quality and the risk of lower respiratory tract infections in young children, measured ventilation in 49 homes of children less than 5 years of age. Identified the occurrence of lower respiratory tract infections using a standardized questionnaire. Associations between ventilation measures and lower respiratory tract infection were evaluated using multiple logistic regression models. The mean number of occupants per house was 6.1 people. The mean ventilation rate per person was 5.6 L/s (standard deviation [SD] 3.7); 80% (37/46) of the houses had ventilation rates below the recommended rate of 7.5 L/s per person. The mean indoor carbon dioxide (CO<sub>2</sub>) concentration of 1358 (SD 531) ppm was higher than the recommended target level of 1000 ppm. Smokers were present in 46 homes (94%). Of the 49 children, 27 (55%) had a reported history of lower respiratory tract infection. Reported respiratory infection was significantly associated with mean CO<sub>2</sub> levels (odds ratio [OR] 2.85 per 500-ppm increase in mean indoor CO<sub>2</sub>, 95% confidence interval [CI] 1.23–6.59) and occupancy (OR 1.81 for each additional occupant, 95% CI 1.14–2.86). Reduced ventilation and crowding may contribute to the observed excess of lower respiratory tract



infection among young Inuit children. The benefits of measures to reduce indoor smoking and occupancy rates and to increase ventilation should be studied.<sup>46</sup>

Wolf, Dana G. MD (2006) ,compared the clinical and demographic features of children with lower respiratory tract infection (LRI) caused by human metapneumovirus (HMPV), respiratory syncytial virus (RSV) and influenza A virus and sought to determine whether coinfection by HMPV and other respiratory viruses leads to increased disease severity. Nasal wash specimens were prospectively obtained from 516 children hospitalized for LRI during a 1-year period and tested for the presence of HMPV by reverse transcription-polymerase chain reaction and for RSV and influenza A by direct immunofluorescence. HMPV was detected in 68 (13%) patients and was the third most common viral pathogen; 16 of 68 HMPV-positive children (24%) had coinfection with other respiratory viruses (HMPVco),HMPV patients were older than RSV patients ( $17.6 \pm 16.8$  months versus  $10.5 \pm 11.8$  months,  $P = 0.02$ ). HMPV was associated with wheezing and hypoxemia at a rate similar to that of RSV and higher than that of influenza A. Atelectasis was more common among HMPV (40%) than among RSV and influenza patients (13%,  $P < 0.05$  for each). HMPV infection was more often associated with a diagnosis of pneumonia than RSV and influenza A and was more often associated with a diagnosis of asthma and less often associated with a diagnosis of bronchiolitis than RSV infection ( $P < 0.05$  for each), even when corrected for age. Children with HMPVco had a higher rate of gastrointestinal symptoms but did not show a more severe respiratory picture. The clinical pattern of HMPV more closely resembles that of RSV than that of influenza A LRI, yet the differences in age, radiographic findings and clinical diagnosis suggest that HMPV pathogenesis may differ from that of RSV.<sup>47</sup>

John V. Williams, M.D (2005) et al ,Human Metapneumovirus and Lower Respiratory Tract Disease in Otherwise Healthy Infants and Children,tested nasal-wash specimens, obtained over a 25-year period from otherwise healthy children presenting with acute respiratory tract illness, for human metapneumovirus. A viral cause other than human metapneumovirus was determined for 279 of 687 visits for acute lower respiratory tract illness (41 percent) by 463 children in a population of 2009 infants and children prospectively seen from 1976 to 2001. There were 408 visits for lower respiratory tract illness by 321 children for which no cause was identified. Of these 321 children, specimens from 248 were available. Forty-nine of these 248 specimens (20 percent) contained human metapneumovirus RNA or viable virus. Thus, 20 percent of all previously virus-negative lower respiratory tract illnesses were attributable to human metapneumovirus, which means that 12



percent of all lower respiratory tract illnesses in this cohort were most likely due to this virus. The mean age of human metapneumovirus–infected children was 11.6 months, the male:female ratio was 1.8:1, 78 percent of illnesses occurred between December and April, and the hospitalization rate was 2 percent. The virus was associated with bronchiolitis in 59 percent of cases, pneumonia in 8 percent, croup in 18 percent, and an exacerbation of asthma in 14 percent. We also detected human metapneumovirus in 15 percent of samples from 261 patients with upper respiratory tract infection but in only 1 of 86 samples from asymptomatic children. Human metapneumovirus infection is a leading cause of respiratory tract infection in the first years of life, with a spectrum of disease similar to that of respiratory syncytial virus.<sup>48</sup>

#### **D) Review related to domiciliary management of acute respiratory tract infections :**

R. Bhakialakshmi A (2015) carried out study on descriptive study to assess the level of knowledge on home care management of upper respiratory tract infection at Chettinad hospital and Research Institute Tamilnadu . The objectives were to assess the level of knowledge of mothers of under five children regarding home care management of upper respiratory tract infection and also find the association between the level of knowledge on home care management of upper respiratory tract infection and the selected demographic variables. Non probability, convenient sampling technique were used with the sample of 30, structured interview schedule were used to assess the knowledge. The study results reveals that 60% of the mothers are having moderate knowledge and 40% of the mothers are having adequate knowledge. So this study shows that the mothers of under five children are having a good knowledge regarding home care management of upper respiratory tract infection.<sup>49</sup>

Rajesh Kumar, Anjum Hashmi et al ,( 2012) A cross sectional study conducted from Nov 2008 to March 2009, with Objectives to evaluate the health seeking behavior of mothers regarding ARI in under 5 children and to assess knowledge, attitude and practices of mothers regarding ARI.1000 mothers were selected by non probability convenience sampling interviews conducted by trained doctors. A structured interview will be conducted to assess the demographic data and test knowledge related to domiciliary management and prevention of ARI.Data was entered and descriptive and inferential statistics was used for data analysis. Chi-square ( $\chi^2$ ) test was applied to measure the association between the level of knowledge and selected demographic variables done on SPSS 10.Concluded that Incidence of acute respiratory infections in children varies in different communities of Mithi and is a common cause of morbidity. Knowledge of less educated mothers of children is

low, which needs to be improved by different interventions like health education sessions, media campaign, and knowledge through LHWs, Banners, and different NGOs etc. These can improve knowledge, attitude & practice of mothers which can contribute in reducing Child Mortality Rate due to ARI in Tharparkar.<sup>50</sup>

Cecilia Bukutre, Christophe Le et al (2008) Researched on “Complementary, holistic and Integrative medicine for the common Cold”. The study review examines popular complementary, Alternative medicine (CAM) therapies used to alleviate symptoms of the common cold in children. Natural health products (which include herbals (Ex : Ginger, Echinacea, Eucalyptus) honey, vitamins, homeopathic and traditional medicines) are used widely for prevention and treatment of common cold. Study have investigated the efficiency and safety of Echinacea in the prevention and treatment of colds in pediatric patients. The first was randomized controlled trail (RCT) in which 430 children (ages 1 to 5 years) received on herbal preparations containing 50 mg/ml of Echinacea and 10 mg/ml of vitamin C over a 12 week period during the winter. Children had significant reductions in the number of illness episodes (55% reduction).<sup>51</sup>

Kamlesh patel, (2006) carried out study on “To Evaluate the efficacy and tolerability of bovine colostrum (pedimune) in preventing upper respiratory tract infections in children”. 605 children (1-8 years) having recurrent episodes of respiratory tract infections received bovine colostrum (pedimune) for 12 weeks. Total number of episodes of recurrent infections, hospitalization care, overall well being, adverse event were assessed at every 4 weeks. It was highly effective in the prophylactic treatment of recurrent upper respiratory tract infections in reducing. Result concluded that episodes of upper respiratory tract infection reduced significantly 91.19% at the end of therapy.<sup>52</sup>

#### **E) Review related to studies on Knowledge ,Practices,of mothers of under five**

Koh chee teck et al (2016) conducted study on knowledge, attitude, and practice of parents regarding antibiotic usage in treating children’s upper respiratory a cross-sectional study was conducted among 320 randomly selected parents attending a primary health clinic using self-administered questionnaires. About two-thirds (69.1%) of the parents had poor knowledge level. Only 25.2% and 21.6% of the parents could correctly identify amoxicillin and penicillin as the treatment of children’s URTI. However, about two-thirds (67.5%) of the parents were aware of the antibiotic resistance caused by overuse of antibiotics. A significant association was noted between the father’s and mother’s educational level and family income with the knowledge level. Only mother’s educational level depicted a significant association with the attitude. The knowledge of parents

regarding antibiotic usage for URTI was poor. More numbers of health promotions and educational campaigns are required to help parents understand about antibiotic usage.<sup>53</sup>

Zyoud SH (2015) ,conducted study on A cross-sectional study in primary health care centres. A questionnaire was developed and administered to determine parents' KAP regarding antibiotic use for their children with URTIs. Three hundred and eighty-five parents completed the questionnaire. A total of 79.7% of the parents were attentive to the truth that antibiotic misuse is responsible for bacterial resistance. Only 18.9% of parents thought that antibiotics did not have any harmful side effects. Fifty nine per cent of parents did not agree that URTIs are mostly viral in origin and are self-limited. Almost 73% of parents choose antibiotics as a treatment for URTIs, while earache (68%) and fever (64%) were the most common reasons for which parents expected antibiotics. However, more than 38% of the parents never asked the paediatrician to prescribe antibiotics, and only 6% congratulated their paediatricians for not prescribing antibiotics. Although there is a trusted relationship between parents and paediatricians, Palestinian parents have insufficient knowledge related to antibiotic use for URTIs in children, which results in inappropriate attitudes and practices. Educational interventions for both parents and physicians will reduce unnecessary antibiotic use and resistance.<sup>54</sup>

Sangeeta Santosh (2014) carried out a A cross-sectional study on Maternal Knowledge and Practices Regarding Prevention and Treatment of Common Cold in Children Under 6 Years of Age, consisting of 301 mothers selected on non-probability convenience sampling basis, was conducted at Karachi. Results shows Mean age of mothers was 31 years; 61% (n=184) had received at least primary education; 83% (n=250) were house wives and 61% (n=184) belonged to low income family. Eighty one percent (n=245) mothers had knowledge about home remedies regarding common colds. Thirty six percent (n=108) of mothers were counseled by health care providers regarding safe home remedies. Only 20% (n=60) mother had knowledge about hand washing as a means of prevention for spread of common cold while 36% (n=108) mothers knew that good ventilation would prevent the spread of common cold. Home remedies were practiced by 67% (n=203) of the participants while 37% (n=113) mothers practiced self-medication. Concluded that Home based therapies for common colds are commonly used in our country. Many are complementary to other treatment modalities. Mothers had poor knowledge regarding spread of common cold.<sup>55</sup>

Bham SQ, Saeed F,(2014) et al conducted cross-sectional survey on Knowledge, Attitude and Practice of mothers on acute respiratory infection in children under five years. The study reveals good knowledge of mothers on ARI symptoms, worsening environmental conditions, aggravating factors and complications. Their attitude towards ARI was appropriate with early consultation with qualified medical practitioner. Better literacy rate, has a positive influence on the Knowledge, Attitude and Practices of mothers, Mothers(n=335) who were local residents, Total 335 children were studied. Out of 335 children 228(68%) had ARI. Mean age of the children was 20 months  $\pm$ 17 SD while mean Birth weight was 2.7 kg  $\pm$  1.8 SD. The most common symptom perceived was cough (n=303, 40%), mostly worsening during winter season (n=255,87%), commonest aggravating factor was dust (n=174,81%), most common complication was Pneumonia (n=135, 83%), and most mothers opted for medical practitioner (n=268,89%) for treatment. Self-medication was practiced by 192(58%) and paracetamol was frequently used medication (n=117,42%). The study reveals good knowledge of mothers on ARI symptoms, worsening environmental conditions, aggravating factors and complications. Their attitude towards ARI was appropriate with early consultation with qualified medical practitioner. Better literacy rate, has a positive influence on the Knowledge, Attitude and Practices of mothers.<sup>56</sup>

Bandyopadhyay dr debasis (2013) ,a cross sectional study was covering 600 mothers living in urban and rural area of burdwan district questionnaire regarding knowledge revealed that 40% of mothers preferred private set up as a place of choice for treatment (more in urban area 55%). 70% of mothers preferred allopathic medicine as a choice of type of treatment. 42.5% of mothers rated diseases as serious(more in urban area 55%). 50% mothers were illiterate (70% in rural area) and 66.7% mothers were housewives. The study strongly towards the low utilization of basic health services in government set up, lack of mother's education especially in prevention and control of ARI. Health education can change health care seeking behaviors and attitude of parents and other family members to take care of the ARI child during illness.<sup>57</sup>

Jafari Farhad (2013) comprehensively studied on ,The Knowledge, Attitude and Practice of Mothers Regarding Acute Respiratory Tract Infection in Children, Control of acute respiratory infections (ARI) is a major problem of public health in developing countries. Effective health education programs are required to be designed in accordance with knowledge, attitude and practice (KAP) of society. This was a cross-sectional study conducting on 255 mothers. The data were collected through using interviewer-administered questionnaire. The most common treatment adopted by mothers for ARI in children was syrups and cold pills (22%). The mean value of mother's practice and the mean scores of their knowledge and attitude were high. Performance score

of mothers with young children with ARI and last source of their information and knowledge and attitude scores were correlated with mother's age and nationality. Significant relationship was not found between the mother's attitude and performance. On the other hand, attitude and performance were not related to the mother's education level and occupation. The knowledge and attitude of mothers were high and their practice was good toward ARI. Since mothers practice is related to their source of information, the designing of educational programs with regard to mothers practice is useful to improving their practice.<sup>58</sup>

Dr. Bipin Jayantilal Prajapati (2012) researched on A cross sectional study of Knowledge, Attitude and Practices of Mothers Regarding Acute Respiratory Infection (ARI) In Urban And Rural Communities Of Ahmedabad District, Gujarat covering 500 mothers living in urban and rural area of Ahmedabad district from September 2008 to March 2009. Results of knowledge revealed that 35.2% of mothers preferred private set up as a place of choice for treatment (more in urban area 58.4%). 71.4% of mothers preferred allopathy as a choice of type of treatment. 40.8% of mothers rated diseases as serious (more in urban area 54.4%). 50.8% mothers were illiterate (70% in rural area) and 70.4% mothers were housewives. Concluded that study strongly towards the low utilization of basic health services in government set up, lack of mother's education especially in prevention and control of ARI. Health education can change health care seeking behaviors and attitude of parents and other family members to take care of the ARI child during illness.<sup>59</sup>

Simiyu DE, Wafula EM, Nduati RW, et al (2003) conducted study on Mothers knowledge, attitudes and practices regarding acute respiratory infections in children. The aim of the study was to determine the KAP of mothers regarding ARI in their children aged less than five years. Community based cross-sectional survey done on ,Mothers with children aged 0-5 years were recruited following stratified random sampling in three areas of Baringo District to represent low, medium and high potential areas based on agricultural productivity. A mixed structured and unstructured questionnaire was administered; A total of 309 mothers were interviewed. Their mean age was 31.5 years (range 16-51) and 34% had no formal education. Only 18% of mothers described pneumonia satisfactorily. 60.2% knew that measles is preventable by immunisation. 87.1% of the mothers said they would seek health centre services for severe ARI. Formal education had a positive influence on the KAP of the mothers. The study reveals that the mothers had good knowledge of mild forms of ARI but not the severe forms. Their attitude to ARI was appropriate but subsequent practices were not. Low utilisation of health

services for moderate ARI may result in continued high mortality because of delayed identification of seriously ill children.<sup>60</sup>

## F. Review related to prevention of bronchopneumonia

Carlos GGrijalvamd (April 2007) conducted study on decline in pneumonia admissions after routine childhood immunisation with pneumococcal conjugate vaccine in the USA: a time-series analysis, Routine infant immunisation with seven-valent pneumococcal conjugate vaccine (PCV7) began in the USA in 2000. Although invasive pneumococcal disease has declined substantially, therefore assessed the effect of the programme on rates of all-cause and pneumococcal pneumonia admissions. Data from the Nationwide Inpatient Sample, that used pneumonia (all-cause and pneumococcal) admission rates as the main outcomes. Monthly admission rates estimated for years after the introduction of PCV7 vaccination (2001–2004) were compared with expected rates calculated from pre-PCV7 years (1997–1999). The year of vaccine introduction (2000) was excluded, and rates of admission for dehydration were assessed for comparison. At the end of 2004, all-cause pneumonia admission rates had declined by 39% (95% CI 22–52) for children younger than 2 years, who were the target population of the vaccination programme. This annual decline in all-cause pneumonia admissions of 506 (291–675) per 100 000 children younger than 2 years represented about 41 000 pneumonia admissions prevented in 2004. During the 8 study years, 10 659 (2%) children younger than 2 years admitted with pneumonia were coded as having pneumococcal disease; these rates declined by 65% (47–77). This decline represented about 17 fewer admissions per 100 000 children in 2004. Admission rates for dehydration for children younger than 2 years remained stable over the study period. The reduction in all-cause pneumonia admissions in children younger than 2 years provides an estimate of the proportion of childhood pneumonias attributable to *Streptococcus pneumoniae* in the USA that are vaccine preventable, results contribute to the growing body of evidence supporting the beneficial effects of the pneumococcal conjugate vaccines in children.<sup>61</sup>

Sulanto A, Gessner BID, et al (2002) conducted a study on disease prevention and health promotion division in Indonesia. The study reveals that the incidence was higher among younger and rural children. Infant mortality rates were 84 and 33 per 1000 live births respectively, more than 65 per cent of death was due to ARI which occurred outside of the hospital setting. The study suggested that intervention should include introducing



vaccines to prevent infection leading to pneumonia and increasing the access of critically ill infants to the health care system.<sup>62</sup>

Bhandari Nita, Bahl Rajiv, Taneja Sunita, et al. (2002) carried out a study on randomised controlled trial Effect of routine zinc supplementation on pneumonia in children aged 6 months to 3 years in an urban slum , To evaluate the effect of daily zinc supplementation in children on the incidence of acute lower respiratory tract infections and pneumonia. Double masked, randomised placebo controlled trial. A slum community in New Delhi, India. took sample 2482 children aged 6 to 30 months. Method used was Daily elemental zinc, 10 mg to infants and 20 mg to older children or placebo for four months. Both groups received single massive dose of vitamin A (100 000 IU for infants and 200 000 IU for older children) at enrolment. All households were visited weekly. Result shows , At four months the mean plasma zinc concentration was higher in the zinc group (19.8 (SD 10.1) v9.3 (2.1)  $\mu\text{mol/l}$ ,  $P < 0.001$ ). The proportion of children who had acute lower respiratory tract infection during follow up was no different in the two groups (absolute risk reduction  $-0.2\%$ , 95% confidence interval  $-3.9\%$  to  $3.6\%$ ). Zinc supplementation resulted in a lower incidence of pneumonia than placebo (absolute risk reduction  $2.5\%$ , 95% confidence interval  $0.4\%$  to  $4.6\%$ ). After correction for multiple episodes in the same child by generalised estimating equations analysis the odds ratio was 0.74, 95% confidence interval 0.56 to 0.99. Concluded that Zinc supplementation substantially reduced the incidence of pneumonia in children who had received vitamin A.<sup>63</sup>

### G) Studies related to information booklet

Kibaru EG (2016), Cross sectional descriptive study done on Knowledge of neonatal danger signs among mothers attending well baby clinic in Nakuru Central District, Kenya: with the objective to determine the level of knowledge of mothers attending well baby clinics on postnatal neonatal danger signs and determine the associated factors , and with Purposive sampling , A structured questionnaires were administered to mothers with children aged six weeks to nine months attending well baby clinics. Frequencies, Chi square and multivariate logistic regression were determined using the SPSS software During the period of study 414 mothers attending well baby clinics were interviewed. Information on neonatal dangers was not provided to 237 (57.2%) of the postnatal mothers during their antenatal clinic attendance by the health care providers. Majority of mothers 350 (84.5%) identified less than three neonatal danger signs. Hotness of the body (fever) was the commonly recognized danger sign by 310 (74.9%) postnatal mothers. Out of 414 mothers 193 (46.6%),



166 (40.1%), 146 (35.3%) and 24 (5.8%) identified difficulty in breathing, poor sucking, jaundice and lethargy/unconsciousness as new born danger signs respectively. Only 46 (11.1%) and 40 (9.7%) identified convulsion and hypothermia as new born danger signs respectively. Education Level, PNC accompaniment by Spouse, Danger signs information to Mother, Explanation of MCH booklet by Care provider during ANC and Mother read MCH Booklet were factors positively associated with improved knowledge of neonatal danger sign. In multivariate logistic regression none of the factors tested were statistically significant in relation to level of knowledge. Knowledge of neonatal danger signs was low among mothers attending well baby clinic despite the information being available in the MCH booklets provided to the mothers during antenatal clinics.<sup>64</sup>

Chow CB et al (2016 ) conducted Randomized Controlled Trial study on Effectiveness of a Technology-Based Injury Prevention Program for Enhancing Mothers' Knowledge of Child Safety. This study aims to examine the effectiveness of a technology-based injury prevention program with parental anticipatory guidance for enhancing mothers' knowledge of child safety. 308 mothers will be recruited from the antenatal clinics and postnatal wards of two major public hospitals in Hong Kong. Participating mothers will be randomly assigned into intervention and control groups. Mothers in the intervention group will be given free access to a technology-based injury prevention program with anticipatory guidance, whereas mothers in the control group will be given a relevant booklet on parenting. The injury prevention program, available as a website or on a mobile app, includes behavioral components based on the Theory of Planned Behavior. The primary outcome measure will be the change in the mother's knowledge of child safety. The secondary outcome measures will be age-appropriate domestic safety knowledge, attitudes, intentions, perceived behavioral control, and self-reported behavior related to home safety practice. We will also determine dose-response relationships between the outcome measures and the website and mobile app usage. Enrolment of participants will begin in October 2016. Results are expected by June 2018. Parents will be able to easily access the domestic injury prevention website to find information regarding child injury prevention. It is anticipated that the technology-based intervention will help parents improve their knowledge of child safety and raise their awareness about the consequences of domestic injuries and the importance of prevention.<sup>65</sup>

Farris JR (2013) conducted study on Effective intervention programming: improving maternal adjustment through parent education. This study assessed the secondary effects of a parent training intervention program on maternal adjustment, with a focus on understanding ways in which program efficacy differed for participants as a function of whether or not their children had behavior problems. Mothers (N = 99) of toddlers (2-3 years of age) were randomly assigned to receive one of three levels of intervention: (1) informational booklet (2) booklet + face-to-face parent training sessions, or (3) booklet + web-based parent training sessions. Findings indicated that all levels of intervention were associated with increases in maternal well-being for participants with typically developing children. Mothers of toddlers with behavior problems, however, did not benefit from receiving only the booklet but significantly benefitted from receiving either the face-to-face or web-based interventions. Findings are discussed in terms of efficient and efficacious program dissemination and the resulting implications for public policy.<sup>66</sup>

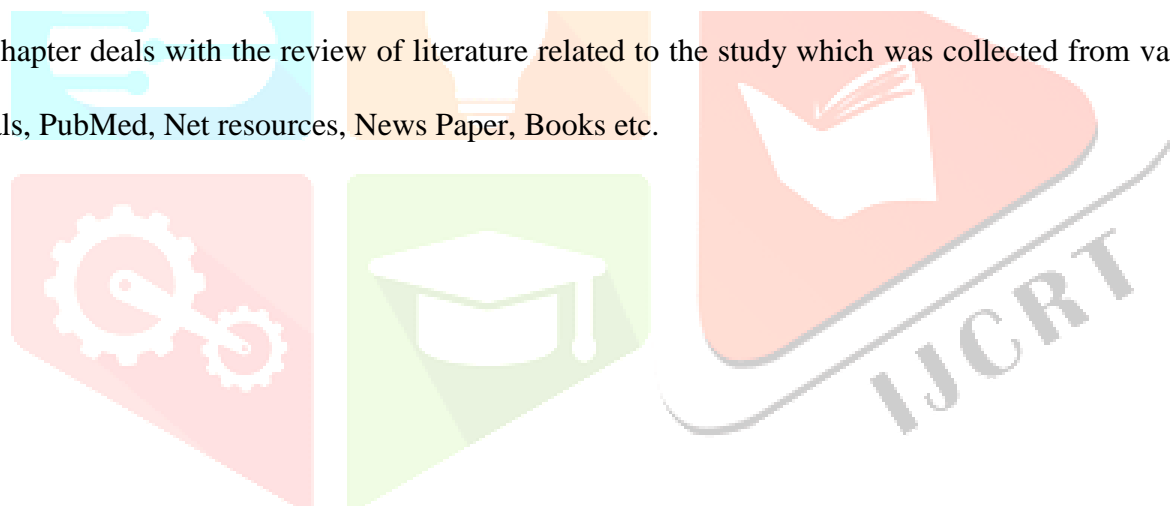
Chacko T, Fernandes P (2012 June), conducted study to assess the effectiveness of an information booklet on knowledge regarding the importance of birth spacing among primi para mothers from 01.08.2011 to 31.10.2011. An evaluative approach with one group pre test post test design was used for the study. 60 samples were selected using purposive sampling method. The collected data were analyzed using descriptive and inferential statistics. Distribution of primipara mothers according to their level of knowledge showed that 49 (81.7%) had poor knowledge score [score range 0-12], 11 (18.3%) had average knowledge [score range 13-25] and none of them had good knowledge [score range 26-37]. The Mean knowledge score in the pre-test was 7.96 which had increased after administration of the information booklet, with mean knowledge score in the post-test by 31.15. A significant difference between pre-test and post-test knowledge was found ( $t=28.945$ ,  $P<0.05$ ) among the primi para mothers by providing an information booklet. There was significant association between the level of knowledge and demographic variables such as educational status, income and previous knowledge.<sup>67</sup>

David, A. & Banerjee, S. (2010), conducted study on Effectiveness of “Palliative Care Information Booklet” in Enhancing Nurses’ Knowledge. In this study, they attempted to assess the level of knowledge about palliative care among nurses working in the oncology department using a self administered structured questionnaire and also to assess the effectiveness of information booklet designed on various aspects of palliative care on their knowledge. The design adopted for this study was One Group pretest – posttest, pre - experimental design. Hundred nurses working in Indo American Cancer Hospital, Hyderabad, AP, India were

selected by using the non probability purposive sampling technique. A structured self administered questionnaire was prepared and administered as a pretest. An information booklet was developed pertaining to the general concepts of palliative care, care components (physical, social, emotional and spiritual) and role of the nurse in palliative care and it was given to the participants. As a post test, the same questionnaire was re-administered after four days to the same study subjects. Pretest and post test knowledge scores were compared and the findings were analyzed statistically. The post test scores were significantly higher than the pretest knowledge scores, which indicate that the developed information booklet regarding palliative care was highly effective in enhancing the knowledge levels of the nurses. Hence the information booklet was effective in enriching the knowledge of nurses on palliative care. Enhancing the nurse's knowledge about palliative care will promote their understanding of the needs of the advanced stage patients and will enable them to provide quality care.<sup>68</sup>

## SUMMARY

This chapter deals with the review of literature related to the study which was collected from various articles journals, PubMed, Net resources, News Paper, Books etc.



## CHAPTER III

## RESEARCH METHODOLOGY

**“If you believe in living a respectable life, you believe in self-help  
which is the best help”**

**-Dr, Babasaheb Ambedkar**

According to Polit and Hungler, “Research methodology is a technique that is used to structure a study and to gather the information in a systematic fashion.” This scientific method involves the formal application of systematic and logical procedures that guides the investigation of the interest. The scientific investigator similarly endeavours to understand, explain and predict this task in more orderly and systematic fashion that is typical of most of our everyday effort to solve problem.<sup>69</sup>

This chapter deals with the methodology used by the investigator to assess the knowledge and practices regarding prevention of bronchopneumonia among mother of under five children admitted in paediatric wards, attending OPD,CWC in selected metropolitan city In view to develop information booklet. Thus deals with research approach, research design, setting of the study, population, subject, criteria for subject selection, sampling technique, subject size, development of tool and awareness programme, pilot study, data gathering process, tool and technique and the plan of data analysis adopted by the investigator.

### RESEARCH APPROACH

According to Polit and Hungler, “Research approach refers to the way in which the investigator plans or structures the research process. It is a set of the flexible spots designed to keep the research in the right direction. This scientific process helps to acquire dependable and useful information.”<sup>69</sup>

Quantitative research is conducted to describe new situations, events or concepts. In this research approach, variables are pre described and defined by the investigator, the data is collected and quantified and then statistically analysed often with the view to develop an Information booklet with relationship among the variables. In other words, Quantitative research deals with what is current situation, concept.<sup>70</sup>

In this study, the investigator intended to assess the knowledge and Practices regarding prevention of bronchopneumonia among the mother's of under five children. Who are admitted in paediatric wards with their children ,attending Paediatric OPD and CWC in metropolitan city with a view to develop An Information booklet . Hence Quantitative Research Approach was considered to be appropriate and therefore accepted for study.

## RESEARCH DESIGN

According to Polit and Hungler, “Research design refers to the investigators overall plan for obtaining an answer of the research question and to test research hypothesis.”<sup>69</sup>

In this study ,A Descriptive research design used to collect information from different subjects within a given population having same characteristics of interest. In Descriptive research , information is collected regarding prevention of bronchopneumonia , and interrelationship of variables within a population. A Descriptive design helps to collect wide range of data from a given population, such as actions, attitude, opinions, perception, behaviours, awareness, practices etc.

Survey could be descriptive, exploratory, comparative, or correlational depending on the nature of phenomenon under study. Descriptive design is undertaken to describe the frequency of occurrence of a phenomenon rather than to study relationships.

Hence for this study Descriptive design was considered to be appropriate to assess the knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children. So here investigator assess the particular phenomenon i.e. knowledge and practices .It was therefore an appropriate and acceptable research design for the present study.

## VARIABLES OF THE STUDY

According to Polit and Hungler, “Variables are qualities, properties or characteristics of persons, things or situations that changes or varies. Variables are the conditions or characteristics that the investigator manipulates, controls or observes. These variables are focus areas of the study or reflect the empirical aspect of the concepts being studied. Variables are also concepts, at different levels of abstraction that are or cautiously defined to promote their measurement or manipulations.”<sup>69</sup>

The investigator has identified the following variables for the study.

### **DEMOGRAPHIC VARIABLE:**

The characteristics and attributes of the study subjects are considered demographic variables. In addition, sometimes investigators even try to establish relations of the demographic variables with the research variables. Common demographic variables are age, educational status, religion, social class, marital status, habitat, occupation, income, medical diagnosis.

Thus the demographic variables in this study are age, religion, educational qualification, occupation, family income, etc.

### **RESEARCHABLE VARIABLE:**

In Descriptive, exploratory, comparative, and qualitative research studies, variables are observed or measured in natural setting as they exist, without manipulating or imposing the effect of intervention or treatment. Here no independent variable is manipulated and no cause and effect relationship is examined; these variables are considered as research variables. Therefore, research variables can be defined as qualities, attributes, properties, or characteristics that are observed or measured in a natural setting without manipulating and establishing cause and –effect relationship.

According to the investigator knowledge and practices of mother's of under five children is the research variable which was assessed.

### **SETTING OF THE STUDY**

According to Polit and Hungler, "Setting is the physical location and condition in which data collection takes place. Setting refers to the area where the study was conducted. It may be natural setting or laboratory setting depending upon the study topic and investigator's choice."<sup>24</sup>

Investigator conducted the present study at Paediatric Wards, OPD and Child welfare clinic in selected Metropolitan city where the under five children investigations and treatment was carried out.

The present study was conducted Paediatric ward OPD,CWC in the tertiary level referral centre as well as helps rehabilitate.

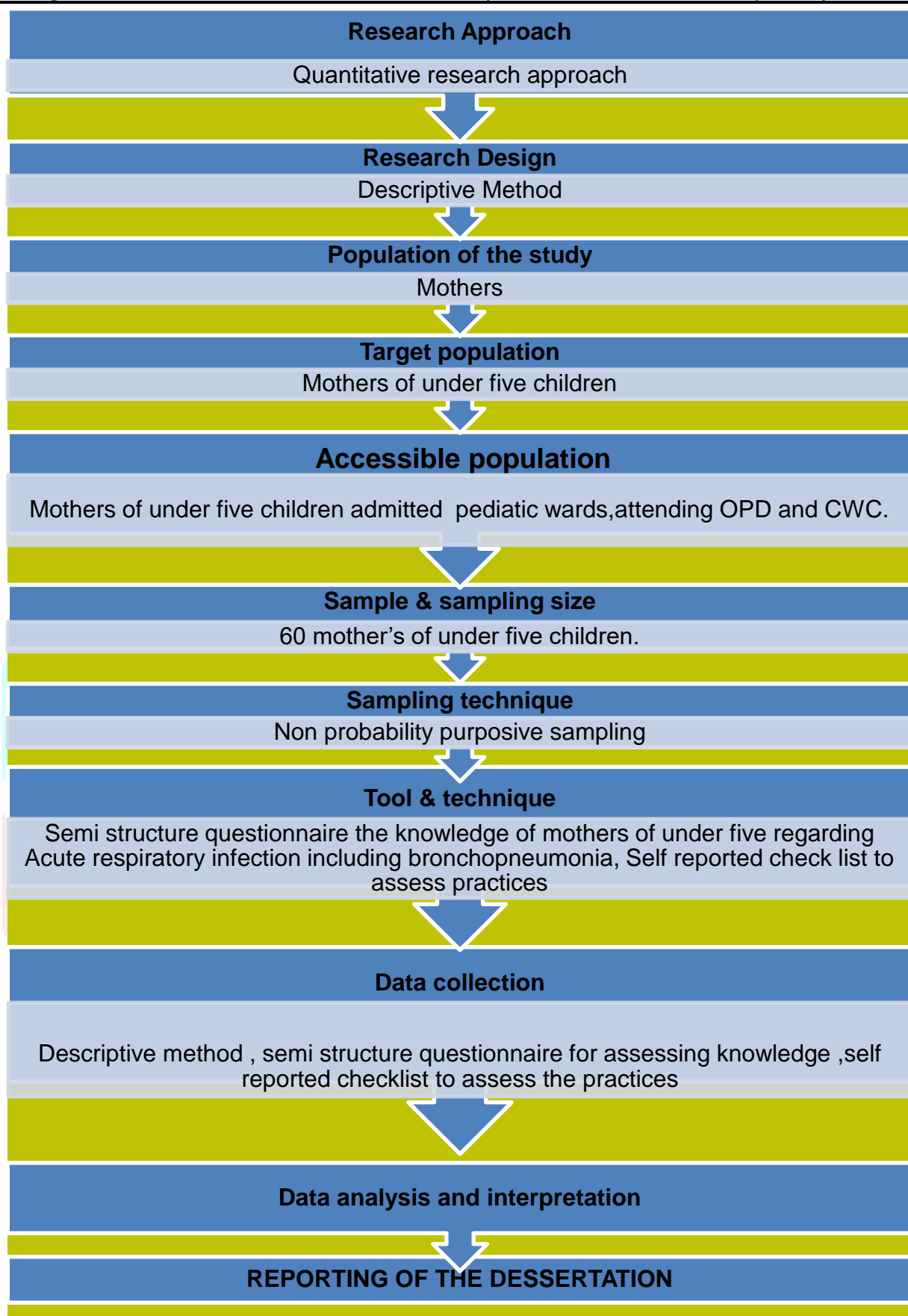


Fig. 2: Schematic representation of research design



The OPD days in a week from Monday to Saturday and period is from 8 am to 2pm and the daily patients with Acute respiratory tract infection treatment are approximately 40 to 50 per day. The investigator selected these settings based on various reasons such as ethical clearance, economy in terms of time, administrative approval. Hence as per the availability of adequate number of subjects, the investigator was able to conduct the study and with the immense cooperation by the mother's of under five children ,medical as well as nursing staff.

## **IDENTIFICATION OF TARGET AND ACCESSIBLE POPULATION**

### **Population**

According to Polit and Hungler,(1985) “A population is entire aggregation of the cases that meet a designed set of criteria.” It is a set of people to which the results of a research are to be generalized.<sup>24</sup>

In this study the population consists of mothers of under five children who were admitted in paediatric wards , attending Paediatric OPD and CWC with their children in selected Metropolitan city.

### **Target population**

According to polit and hungler that the target population refers to the is the entire population in which the investigator is interested and to which investigator would like to generalize the research findings.<sup>24</sup>

In this study the target population is all mothers of under five children from selected Metropolitan city.

### **Accessible population**

It is aggregate cases that conform to designed criteria and that are accessible as subject for study. i.e. the aggregate must meet the criteria for inclusion for the study and that was available to the study.<sup>24</sup>

In this study the accessible population was mother's of under five who's children are admitted in paediatric wards and attending OPD's and CWC .

**SUBJECT AND SAMPLING TECHNIQUE****Sample**

According to Polit and Hungler “A sample is the subset of a population selected to participate in the entire study.”<sup>24</sup>

In this study, the subject was mothers of under five who’s children are admitted in paediatric wards and attending OPD’s and CWC from a selected Metropolitan city.

**Sample size**

According to polit and hungler (1985), sample size is the number of subjects, events, behaviors or situations that are examined in a study.<sup>32</sup>

In the present context of the study the sample size selected is 60 samples from the selected hospital of metropolitan city.

The formula used for determination of sample size was,

$$n = \frac{4 \sigma^2}{E^2}$$

n = sample size

$\sigma$  = Standard deviation

E = error allowable

The sample size is 60 mothers

The subject size of the present study was 60 who fulfilled the inclusion criteria.

**Sampling technique**

Sampling is the process of selecting a group of people, events, behaviours or other elements that are representative of the population being studied. The process of sampling makes it possible to draw valid inferences on generalization based on careful observation of variables within the relatively small proportion of the population.

Non-probability sampling is a technique where in the subjects are gathered in a process that does not give all the individuals in the population equal chances of being selected in the subject. Purposive sampling is a non-probability sampling method in which the investigator selects participants based on personal judgment about which one will be most representative or informative; also called judgmental sampling.<sup>24</sup>.

In this study, the sampling technique used by the investigator was Non-probability purposive sampling because the subjects are included on the basis of mother's who has children under five of age. The technique chosen as it is most reliable & unbiased method & it requires minimum knowledge of study population and is free from sampling errors.

### CRITERIA FOR SUBJECT SELECTION

**Inclusion criteria:** - Mother's of under five children who

1. Are willing to participate in study.
2. Mothers of under five children, who are admitted on paediatric wards, attending paediatric OPD and CWC.
3. Mother's of under five children, who understand Marathi, Hindi, English.
5. Will be available at the time of data collection.
6. Mother's having children under 5 years of age.

**Exclusion criteria:** - Mother's of under five children who

1. Are not willing to participate in this study.
2. Mother's of under five children, who are not available at the time of data collection
4. Mother's of under five children, who were present for the pilot study.

### TECHNIQUE AND TOOL FOR DATA COLLECTION

The technique refers to method of doing something expertly. The technique is adopted by investigator for data collection was self reporting technique.

The tool adopted by investigator for data collection was semi-structured questionnaire & Self reported checklist.

## Self reporting technique

This technique involved obtaining data through self-administration of the set of the questions in a paper and pencil format, so as to seek the desired information from the subject.

The investigator adopted this technique to assess the knowledge and the practices of the Mother's of under five regarding prevention of bronchopneumonia and also implemented the interview. This technique was considered the most suitable one by the investigator as investigator was collecting the opinion from mother's of under five children . The procedure also worked out to be most efficient, economical and convenient for the investigator.

At the same time, the investigator was aware of drawback of this technique and decided to eliminate these problems by being personally present during self-administration phase by the respondent, to clarify any possible doubts or misunderstandings about the instrument.

### Development of tool

The tool was developed step by step through extensive review of literature considering different aspects of prevention of bronchopneumonia. The investigator took expert guidance from the Guide, paediatrician , Ayurvedic doctor ,Community medicine Doctor (PSM),and experts in the field of paediatric Nursing, Medical Surgical Nursing, .The suggestions given by these experts enabled the investigator to finalize the content matter.

The research tool was prepared in English, Marathi and Hindi as the mother's of under five children cannot understand the medical terminologies used in this study in English. The tool was critically reviewed and revised by the research Guide.

### THE FOLLOWING STEPS WERE ADOPTED IN THE DEVELOPMENT OF THE TOOL:

1. Identification of subjects and need to assess the knowledge and practices regarding prevention of bronchopneumonia.
2. Review of literature in related field.
3. Consultation and discussion with nursing experts of the Paediatrics .
4. Discussion and consultation with the statistician.

5. This enabled the investigator to finalize the content matter and final tool preparation with the consent of the guide.

In this study tool consist of the Self Response Questionnaire including Demographic data ,Assessment of knowledge regarding concept about ARI bronchopneumonia, causes of, broncopneumonia ,and treatment done in bronchopneumonia, prevention & complications of bronchopneumonia .

Self reported check list to assess practices of mother's of under five children at home about prevention of bronchopneumonia Considering that information, objectives of the study, variables of the study, review of literature, discussion with the expert and investigator's personal experience was helpful to prepare the tool.

### DESCRIPTION OF THE TOOL

A semi-structured questionnaire consists of three sections ,

Section I :-Demographic data

Section II :-Semistructued questionnaire .

Section III :-Self peported checklist

A blue print was prepared.

**Section I: -** Demographic data which include personal information -10 items, such as

- Age
- Religion
- Education
- Occupation
- Type of family
- Family income
- No of children
- History of respiratory infection in past
- Mode of cooking food.

**Section II:** - A semi-structured questionnaire to assess the knowledge of prevention of bronchopneumonia with respect to develop information booklet. Section II consist of 20 semi structured questionnaire which are again divided in to sub- Parts.

**It includes following sub-sections—**

**Section II Part A** – This part consisted of structured questions to assess Knowledge regarding Concept of Acute respiratory infection which consist of 5 questions.

**Section II Part B**– This part consisted of structured questions to assess Knowledge regarding Causes ,sign & symptoms of bronchopneumonia which consist of 6 questions.

**Section II Part C** - This part consisted of structured questions to assess knowledge regarding treatment of bronchopneumonia which consist of 4 questions.

**Section II Part D** - This part consisted of structured questions to assess Knowledge regarding prevention and complications of bronchopneumonia which consist of 5 questions.

Scoring for the Assessment of Knowledge are categorized Marks obtained by participants as follows.

#### **SCORING FOR KNOWLEDGE AS FOLLOWS**

Each Correct option score	1
Each wrong option score	0

**The scoring of Section II i.e Assessment of knowledge , are categorised Grades according to Marks obtained and Percentage by participants are as follows:-**

Poor knowledge	Below 5	0-25%
Average knowledge	5-10	26-50%
Good knowledge	10-15	51-75%
Excellent knowledge	15-20	76-100%

**Section III: - Self reported checklist:-** prepared to assess the practices carried out by mothers of under five at home during the child is suffering from cold,cough,fever in oder to prevent bronchopneumonia with respect to develop information booklet.

Section III consist of 30 Self reported questionnaire which are again divided in to sub- Parts.

### Section III –Practices related to prevention of bronchopneumonia which include three sub-set of items :-

- A) Practices to reduce fever at home
- B) Practices to reduce cold and cough , congestion at home.
- C) Practices to treat breathing difficulty at home

Section III -Scoring for the Practices are categorized Marks obtained by participants as follows.

#### SCORING FOR PRACTICES AS FOLLOWS

RESPONSES	SCORE
YES	1
NO	0

Section III Scoring is categorized as Grading according to the Percentages and Marks obtained by participants are as follows:-

PERCENTAGE	GRADE	SOCRE
76-100%	Excellent	21 and Above
51-75%	Good	15-21
26-50%	Average	8-15
0-25%	Poor	Less than 8

There are 30 dichotomous response self reported practice questionnaire .(yes/ no questions)

#### FEASIBILITY OF THE STUDY

The investigator found the setting to be appropriate to conduct the study for the following reasons.

- 1) Adequate subjects were available.
- 2) The proximity of the selected area made was convenient for the investigator to travel.



3) All subjects were interested in the study and assured complete co-operation during the study.

4) Investigator has conducted the pilot study.

## VALIDITY OF THE TOOLS

According to Polit and Hungler, “Validity refers to degree to which instrument measures what it is supposed to measure or the extent to which its use provides data compatible with other relevant evidence.<sup>32</sup>” Content validity is the degree to which the items in an instrument adequately represent the universe of content, for the concept being measured.

In this study the tool was scrutinized and validated by a group of 10 experts like 2 Paediatrician , 6 Nursing experts (from 5 child health nursing , 1 Medical Surgical nursing ), and 1 Statistician 1 Ayurveda doctor. As per their suggestions and guidance changes incorporated in the tool, which consist of a reframing Self Response Questionnaire ,self reported checklist and also the criteria for selection of subject.

The questionnaire was translated in Marathi and Hindi for better accessibility and easy understanding of the respondents. The Information booklet was also validated for the content to be included in it. The content validity of the tool is concerned which extent to which a test reflects the variable it seek to measure. Evaluation was obtained.

## RELIABILITY OF THE TOOL

According to Polit and Hungler, “Reliability is defined as the degree of consistency or accuracy with which an instrument measures the attribute, it is designed to measure. It is extent to which an instrument yields the same results on repeated measures.”

In this study reliability of daily rating scale was done by using an split half method of Internal Consistency , Tool tested on 6 subjects. This was done to rule out any bias or any confusion with the rating, which would be elicited after the actual administration of daily rating scale.

The reliability was calculated by split half method of Internal Consistency. It is denoted by ‘r’. Calculated reliability by Karl pearson’s correlation coefficient formula, then applied spearman’s brown prophecy formula as below for lengthening of tool.

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

Where, r = reliability value

N = number of pairs of scores

$\sum X$  = sum of X scores

$\sum Y$  = sum of Y scores

**Reliability by split half method (0.961) is well above 0.7 hence it is acceptable.**

This showed that the tool was highly reliable.

### **PILOT STUDY**

According to Polit and Hungler, "Pilot study is a small scale version or trial run

designated to test a method to be used in a larger, more vigorous study which is sometimes referred to as the parent study."

A pilot study is a small scale version of the actual study. It is designed to acquaint the investigator with the problems to be corrected in preparation for the larger research project and try out the problems in collecting the data. It is conducted with the purpose of testing and potentially refining the research plan. A pilot study is to assess the feasibility and practicability of research methodology and ensure that the investigation laid out in the protocol was realistic.

The investigator conducted pilot study in following steps;

1. Procuring permission for conducting the research study-Investigator took permission from respective authorities of the selected institution.
2. Investigator was conducted Descriptive study in the month of January to identify the subjects about knowledge and practices regarding prevention of bronchopneumonia in selected target population and to plan the data collection.

3. A pilot study was carried out on 6 subjects in the Paediatric wards, OPD and CWC for one week in order to ensure feasibility and the practicability of the research methodology and the tool.
4. The investigator has assessed subjects according to the selection criteria of the study by using Non-probability purposive Sampling Technique.
5. The investigator introduced self and discussed about the purposes of the study with the subjects and obtained their consent for their participation in the study and Self Response Questionnaire was filled from subjects
6. The investigator collected data by administering the questionnaire, for 2 consecutive days.
7. Self reported checklist was used to assess the practices of the mother's of under five children admitted with their child in paediatric wards , CWC and paediatric OPD.
8. The data was analysed by using Frequency, Graph ,Percentage, Mean, Median,Mode.

	Mean	Std. Deviation	N
Knowledge	14.17	4.75	6
Practices	15.33	3.93	6

The mean of knowledge in pilot study was 14.17, and std Deviation 4.75.

The mean of Practices in pilot study was 15.33 and std Deviation 3.93..

The pilot study helped the investigator to visualize practical problems that could be encountered while conducting the main study. The investigator also noted that this study requires more time to collect the data. It also gave the investigator an insight into the actual process of data collection and analysis. The investigator found the study design was feasible, practical and convenient.

## METHOD OF DATA COLLECTION

“It is the precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions, hypothesis of a study.”

### Method of data collection

Prior to starting data collection, formal administration permission was obtained. The investigator prepared and adhered to the plan of data gathering process as follows: -

- The investigator approached the authorized before main study to obtain the permission to conduct the study at selected metropolitan study.
- The necessary written consent forms were filled up by the subject prior to the study.

### Duration of data collection:

The data gathering process commenced for 2 weeks .

1. The requisite permission was taken from the concerned authorities, i.e. Dean of hospital through the medical superintendent and H.O.D. of the department,
2. The investigator introduced self, explained the purpose of the study and assured subjects about the confidentiality of the data collected to the subjects. The investigator then took informed written consent from the subjects for their participation in the study.
3. Selecting study subjects: - The investigator has given Self Response Questionnaire to the subjects. The mothers of under five children's were selected by using Non- probability convenient sampling technique.
4. Practices was assessed by using self reported check list.
5. On an average, total 6-8 subjects were selected and administered questionnaire. But the number of subjects was increased as the total subject was 60 till getting desired number of subjects.
6. On completion of the data collection, the investigator thanked all the subjects, for their co-operation in the study. Same procedure was followed till subject size completed. Medical Superintendent & In charge of Paediatric wards , CWC and OPDs were thanked at the end of the study for their cooperation.

## PLAN FOR DATA ANALYSIS & INTERPRETATION

The data has been analysed in terms of the objectives of study using Descriptive and Inferential statistics. The investigator plan to analyse data in the following way:-

1. Demographic data would be analysing using Frequency , Percentage and presented in the form of Tables and Graphs.
2. Data obtained through questionnaire would be analyzed by using frequency, Percentage, Chi square and will present in the form of Table and Graphs.
3. Association between selected demographic variables and knowledge to be found using Chi square and ANOVA comparision for group wise means.

## CONCLUSION

The investigator used quantitative, Descriptive study design. Permission from the hospital authorities was procured, written informed consent was obtained from the subjects and questionnaire was administered to 60 subjects.

This chapter on methodology deals with research approach, research design, population, sampling technique, subject size, tool preparation, reliability and validity of tool, feasibility of the study, pilot study, method of data collection and plan for data analysis

## CHAPTER IV

### DATA ANALYSIS AND INTERPRETATION

Analysis is defined as “the categorizing, organizing, manipulation and summarizing of the data in order to reduce it to an intelligible and interpretable form, so that the research problem can be studied and tested, including the relation between the variables.”

This chapter deals with the analysis and interpretation of data collected for the present study. Its main purpose was to summarize and organize the data in a meaningful way, so as to interpret and provide answers to the questions raised in the study.

Interpretation of data means, the task of drawing conclusions or inferences and of explaining their significance, after careful analysis of the collected data.

Descriptive analysis provides simple summarization about the research data collected for the study, the following descriptive & inferential statistical method were applied.

**Frequency:** - In statistics the frequency of an event is the number of times the event occurred in study.

**Percentage:** - Percentage simply means “per hundred” and the symbol used to express percentages (%) is one hundred of the total or whole and is therefore calculated by dividing the total or whole number by 100.

In this study the demographic data of the subjects were analyzed in terms of frequency & percentage.

**Mean:** - Is average of all numbers and is sometimes called arithmetic mean. To calculate mean, add together all of the numbers in a set and then divide the sum by the total count of numbers.

#### **Statement of the Problem:-**

“A Descriptive study to assess the knowledge and practices regarding prevention of Bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information Booklet.”

**Objectives of the study:**

1. To assess the knowledge & practices regarding prevention of bronchopneumonia among the mothers of under five children.
2. To identify the co-relationship between the knowledge practices with selected demographic variables.
3. To develop and provide Information booklet on prevention of bronchopneumonia for mother's of under five children's.

**HYPOTHESIS**

H<sub>1</sub> --The will be significant association between knowledge and practices with selected demographics variables.

H<sub>2</sub> -- There is significant difference between the groups of demographic variable with respect to knowledge and practices.

**ASSUMPTIONS**

1. The mothers of under five children may have some knowledge regarding prevention of bronchopneumonia.
2. The information booklet may help to improve the knowledge and practices regarding prevention of bronchopneumonia among mothers of under five

**DATA INTERPRETATION, ORGANIZATION OF DATA: TABLES, FIGURES AND GRAPHS**

The data collected of the study was classified, organized and analysed under following sections:-

**SECTION I:** This section deals with analysis of demographic data of under i.e Age, Religion, Educational status, Occupation etc of mothers of under five children in the study . It is analysed and presented in the form of frequency and percentage.

**SECTION II:** This section deals with assessment of knowledge and Practices Regarding prevention of bronchopneumonia among mothers of under five .

**Part I-** Analysis of data related to ,Section wise assessment of the knowledge and Practice regarding prevention of bronchopneumonia among mothers of under five children in terms of frequency and percentage.

**Part II-** Deals with General assessment of knowledge and practices in terms of frequency and percentage.



**Part III**-Correlation of knowledge and practices by scattered diagram.**SECTION III:**

**Part I-** This section deals with analysis of data related to the association of knowledge and Practice with selected demographic variables regarding prevention of bronchopneumonia among mothers of under five children, who are admitted with their child in pediatric wards, attending CWC, Pediatric OPD's.

**Part II** -This section deals with comprrasion for group wise means.

**SECTION- I**

This section deals with analysis of following demographic data, of the mothers of under five children under the study. It is analyzed and presented in terms of frequency and percentage.

**Table 1 - Distribution of subject according to their demographic data**

N= 60

Sr. No.	Variable	Groups	Frequency	Percentage
1	Age	15-20	11	18.33
		21-25	20	33.33
		26-30	13	21.67
		above 30	16	26.67
2	Educational status	Primary	28	46.67
		Secondary	18	30.00
		Graduate	9	15.00
		Post graduate	5	8.33
3	Religion	Hindu	26	43.33

		Muslim	20	33.33
		Christian	8	13.33
		Any other	6	10.00
4	Occupation	Housewife	28	46.67
		Labourer	17	28.33
		Business	9	15.00
		Service	6	10.00
5	Type of family	Nuclear	22	36.67
		Joint family	34	56.67
		Extended Family	4	6.67
6	Monthly income	5000 to 10,000	14	23.33
		10,001 to 15,000	21	35.00
		15,001 to 20,000	16	26.67
		above 20,000	9	15.00
7	history of any respiratory disease	Yes	45	75.00
		No	15	25.00
8	No of children under five years	One	23	38.33
		Two	21	35.00

		More than two	16	26.67
9	type of house	Pakka House	28	46.67
		kachha house	17	28.33
		Movable dwelling	4	6.67
		Any other	11	18.33
10	source prefer to cook	LPG GAS	42	70.00
		Chullha	13	21.67
		Electric heater	0	0.00
		Any other	5	8.33

**Table 2: Distribution of the mothers of under five according to Age in terms of frequency and percentages.**

*N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
1	Age	15-20	11	18.33
		21-25	20	33.33
		26-30	13	21.67
		above 30	16	26.67

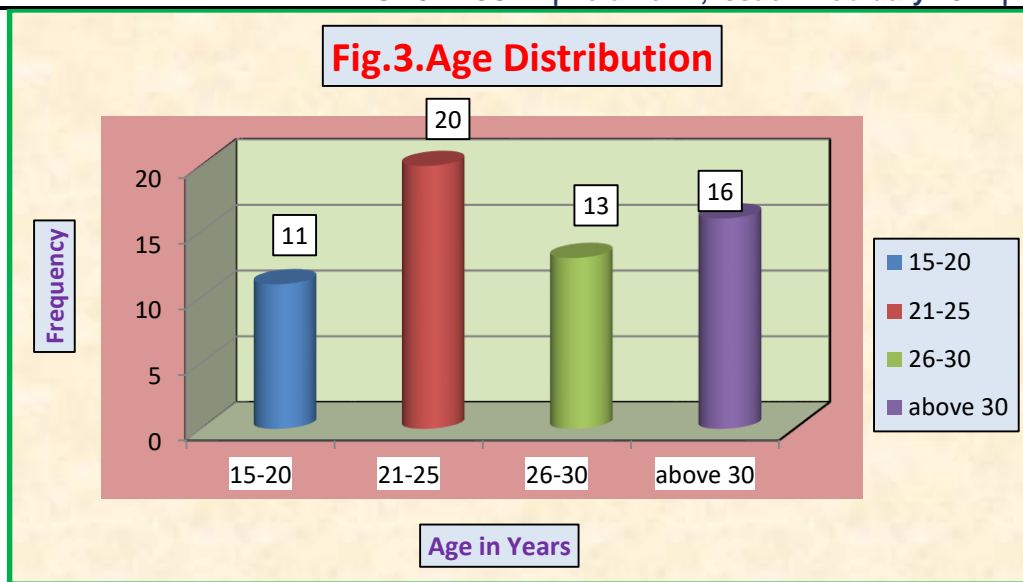


Table 2 and Fig 3 figure depicts that, according to age in the study most of them 20(33.33% )were between 21-25 years of age group,16(26.67%) were above 30 years of age, 13(21.67%) between 26-30 years and remaining 11(18.33%) in age group 15-20 years.

**Table 3: Distribution of the mothers of under five according to Educational Status in terms of frequency and percentages.**

*N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
2	Educational status	Primary	28	46.67
		Secondary	18	30.00
		Graduate	9	15.00
		Post graduate	5	8.33

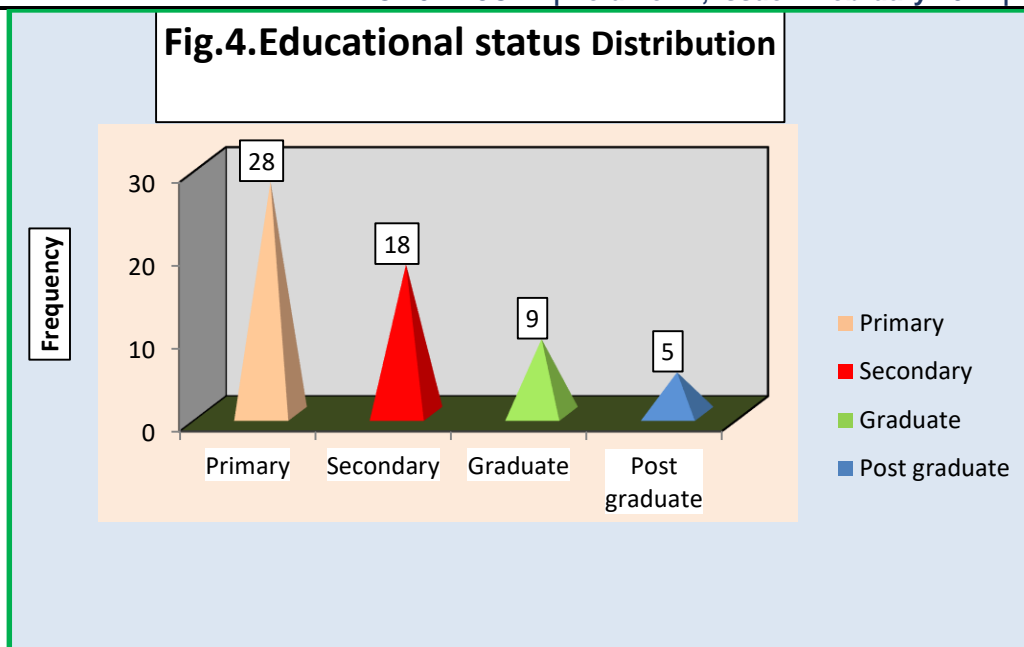


Table 3 and Fig 4 figure Illustrate that, according to Educational status in the study most of them 28(46.67%) were having primary education 18(30%) were persue secondary educational level ,9(15%) are graduate and 5(8.33%) are post graduate. Level range.

**Table 4: Distribution of the mothers of under five according to Religion in terms of frequency and percentages.**

N=60

Sr. No.	Variable	Groups	Frequency	Percentage
3	Religion	Hindu	26	43.33
		Muslim	20	33.33
		Christian	8	13.33
		Any other	6	10.00

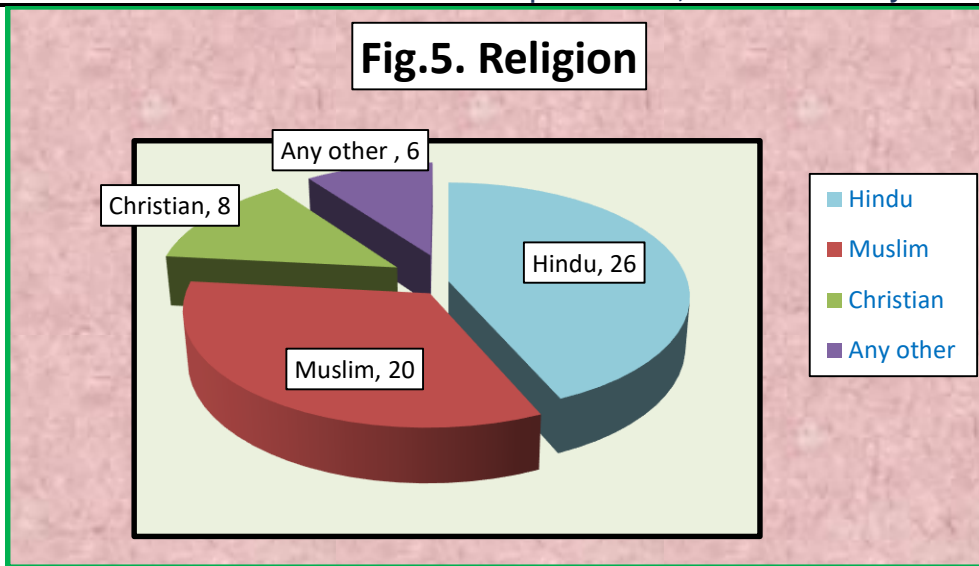
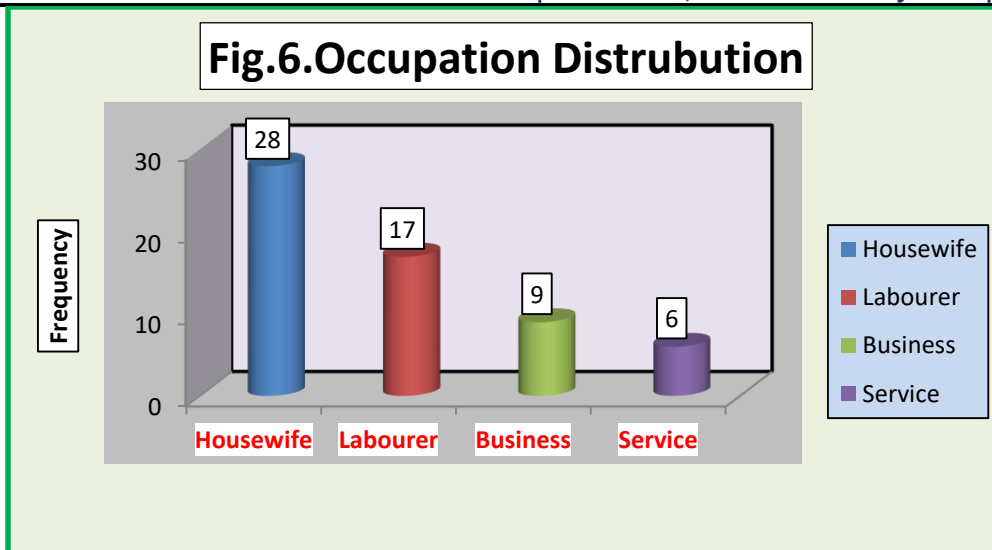


Table 4 and Fig 5. Depicit that,Maximum 26(43.33%) mothers were belong to Hindu religion ,20(33.33%) were Muslim ,8(13.33 ) were chrastain and remaing 6(10%) belongs to other religion.

**Table 5: Distribution of the mothers of under five according to Occupation in terms of frequency and percentages.**

*N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
4	Occupation	Housewife	28	46.67
		Labourer	17	28.33
		Business	9	15.00
		Service	6	10.00



**Table 5 and figure 6:** Illustrate the data related to demographic variables such as occupation of mothers of under five children, 28(46.67% )were housewife,17(28.33%) were labourer ,9(15%) were doing business and 6(10%) were doing service.

**Table 6: Distribution of the mothers of under five according to Type of Family in terms of frequency and percentages.**

N=60

Sr. No.	Variable	Groups	Frequency	Percentage
5	Type of family	Nuclear	22	36.67
		Joint	34	56.67
		Extended	4	6.67

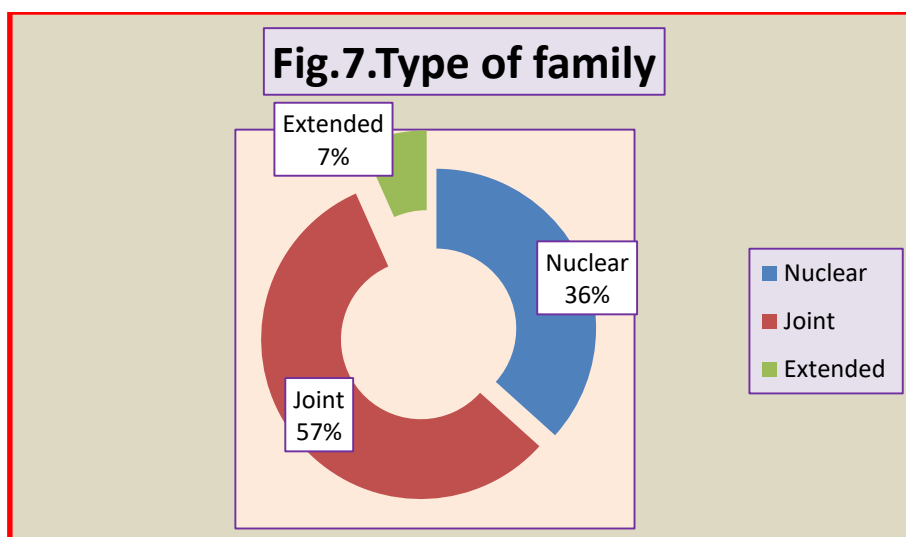




Table 6 and Fig 7 Reveals that,Maximum 34(56.67%) mothers of under five were belong to joint family ,22(36.67%) were living in necular family and 4( 6.67%) lives in extended family.

**Table 7 : Distribution of the mothers of under five according to Monthly Income in terms of frequency and percentages.**

*N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
6	Monthly income	5000 to 10,000	14	23.33
		10,001 to 15,000	21	35.00
		15,001to 20,000	16	26.67
		above 20,000	9	15.00

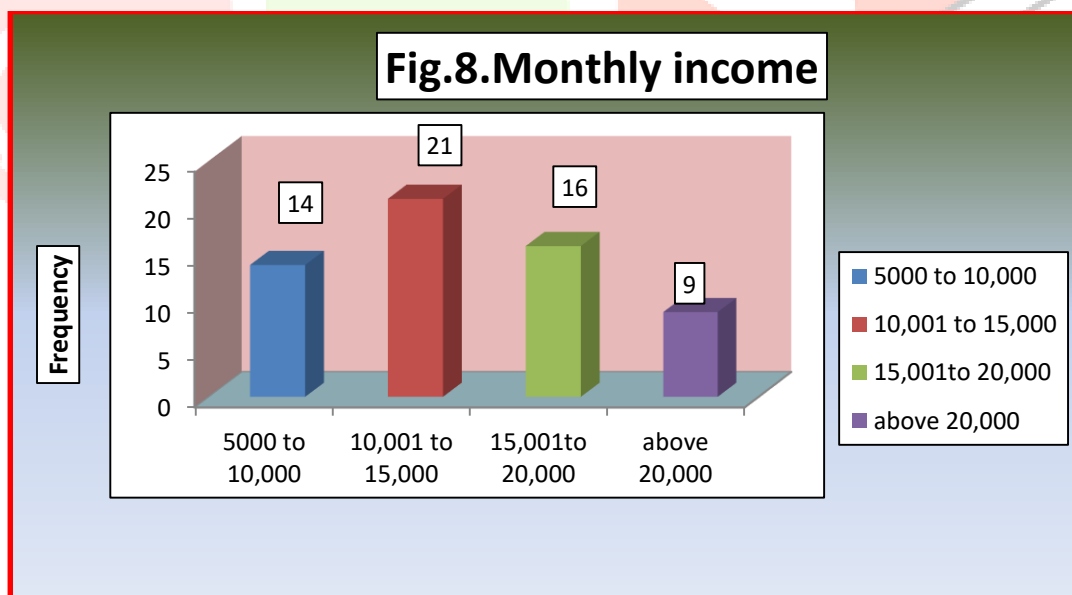
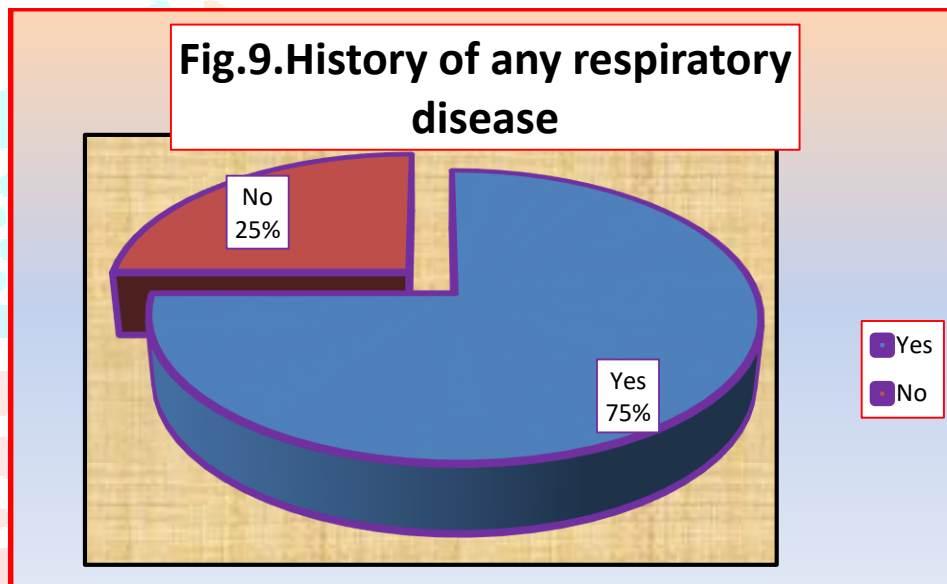


Table 7 and figure 8 Display that,Maximum mothers of under five 21(35%) belongs to the 10.001 to 15,000 / Rs income/ monthl , followed by 16(26.67%) were from income more than Rs 15,001-20,000 / Rs income / month , 14(23.33%) mothers of under five were having 5000 to 10,000/Rs income /month and very less subject have 9(15%) were having maximum income i.e.above 20,000.

**Table 8: Distribution of the mothers of under five according to history of any respiratory disease in****terms of frequency and percentages.***N=60*

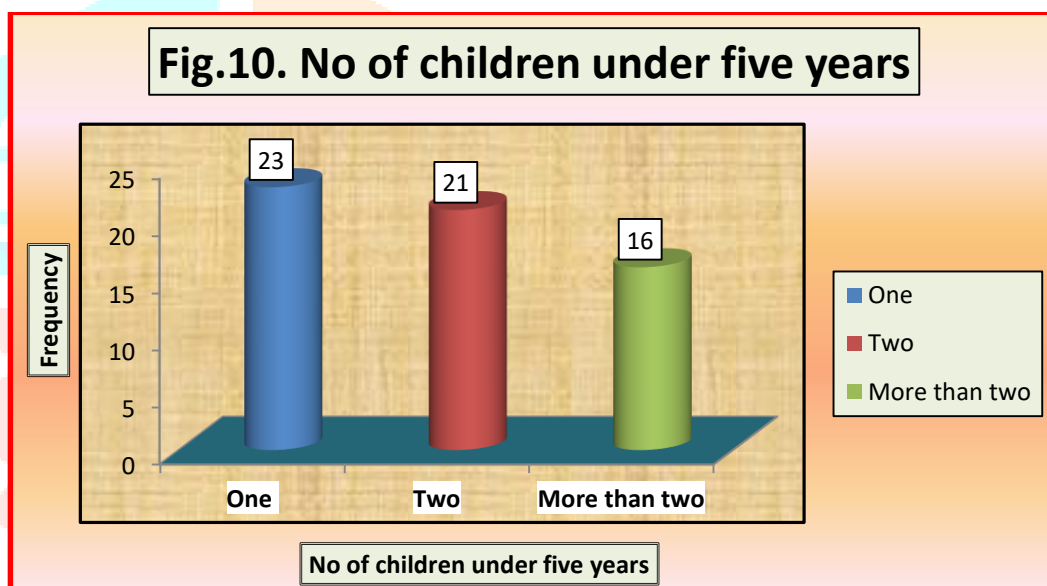
Sr. No.	Variable	Groups	Frequency	Percentage
7	history of any respiratory disease	Yes	45	75.00
		No	15	25.00



**Table 8 and figure 9:** Portray the data related to history of any respiratory disease of children were 45(75%) said Yes and 15(25%) said No history if respiratory infection to their children.

**Table 9: Distribution of the mothers of under five according to No of children under five years in terms****of frequency and percentages.***N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
8	No of children under five years	One	23	38.33
		Two	21	35.00
		More than two	16	26.67

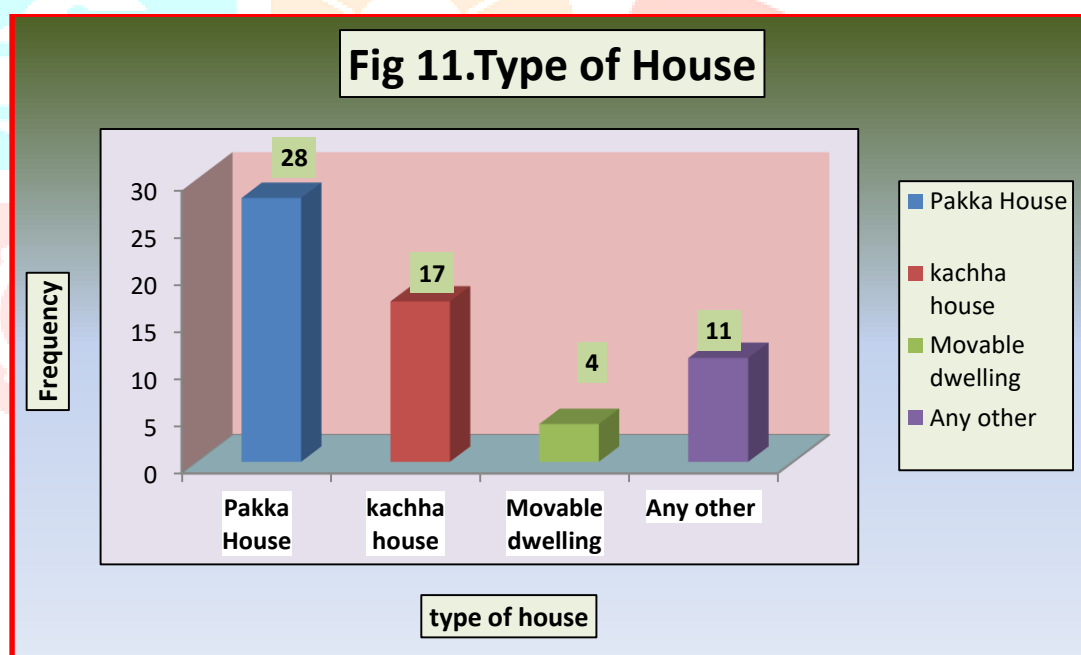


**Table 9 and figure 10 :** Portray the data related to No of children under five 23(38.33%) mothers having one child ,followed by 21(35%) mothers having two and 16(26.67%) were having three children less than five years. .

**Table 10: Distribution of the mothers of under five according to Type of House in terms of frequency and percentages.**

*N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
9	Type of House	Pakka House	28	46.67
		kachha house	17	28.33
		Movable dwelling	4	6.67
		Any other	11	18.33



**Table 10 and figure 11:** Illustrate the data related to type of house 28(46.67%) living in pakka house, followed by 17(28.33%) living in kachha house, 11(18.33%) were living in movable dwelling, and 4(6.67%) were living in other type of house .

**Table 11: Distribution of the mothers of under five according to source prefer to cook in terms of frequency and percentages.**

*N=60*

Sr. No.	Variable	Groups	Frequency	Percentage
10	source prefer to cook	LPG GAS	42	70.00
		Chullha	13	21.67
		Electric heater	0	0.00
		Any other	5	8.33

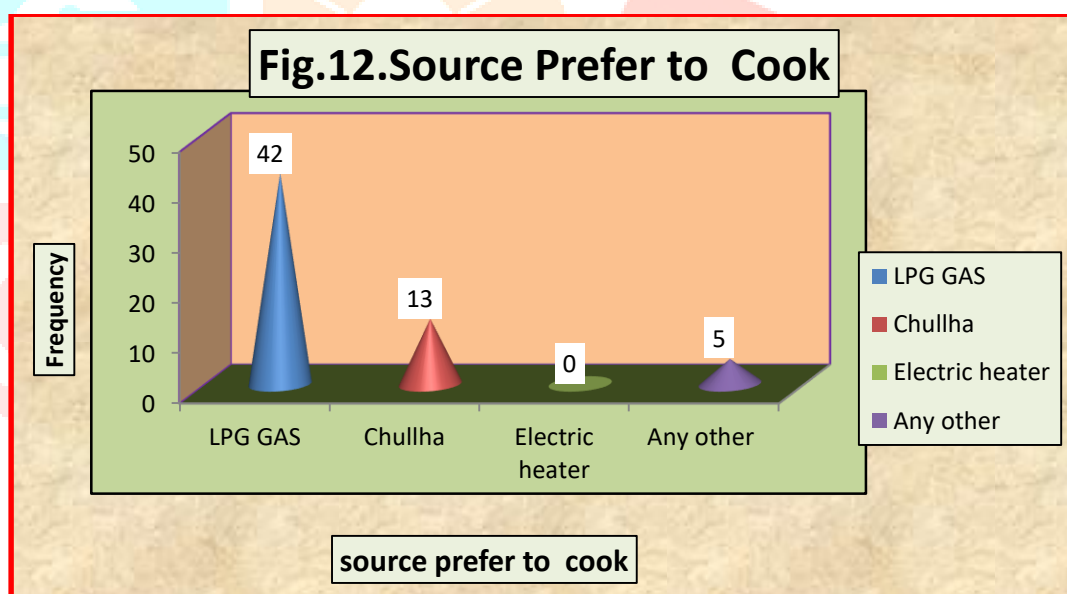


Table 11 and figure 12 illustrate source prefer to cook food 42(70%) prefer LPG Gas, 13(21.67%) prefer chulha ,5(8.33%) prefer to cook in other source i.e stove ,and no one use electric heater to cook food..

## SECTION II

**Part I** – Deals with analysis of data related to area wise knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in terms of frequency and percentage.

**Table 12: Assessment of level of knowledge regarding concept of Acute respiratory infection**

N=60

Assessment of knowledge regarding concepts of Acute respiratory infection			
Groups		Freq	Percentage
Poor	0-25%	13	21.67
Average	26-50%	22	36.67
Good	51-75%	15	25.00
Excellent	76-100%	10	16.67
Total		60	100.00

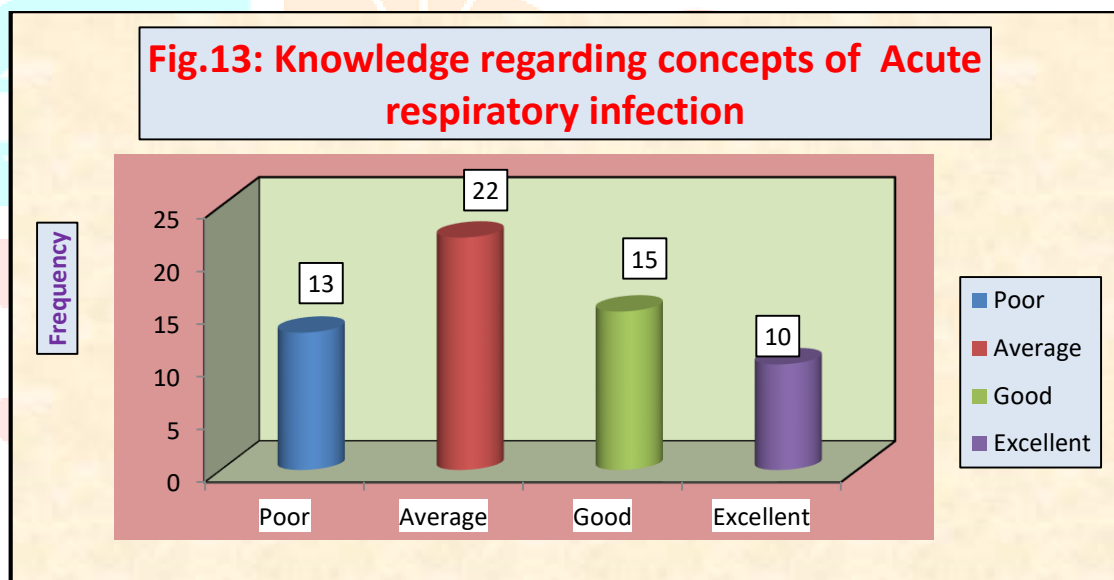


Table 12 and figure 13 illustrate assessment of area wise knowledge regarding concept of acute respiratory infection, Maximum 22(36.67%) mothers had average knowledge followed by moderate 15(25%), mothers with good knowledge, Poor knowledge 13(21.67%) and minimum 10(16.67%) mothers were in excellent knowledge

**Table 13: Assessment of level of knowledge regarding causes ,sign and symptoms of bronchopneumonia.**

*N=60*

<b>Table 13: Assessment of knowledge regarding causes ,sign&amp; symptoms of bronchopneumonia .</b>			
Groups		Freq	Percentage
Poor	0-25%	22	36.67
Average	26-50%	12	20.00
Good	51-75%	18	30.00
Excellent	76-100%	8	13.33
Total		60	100.00

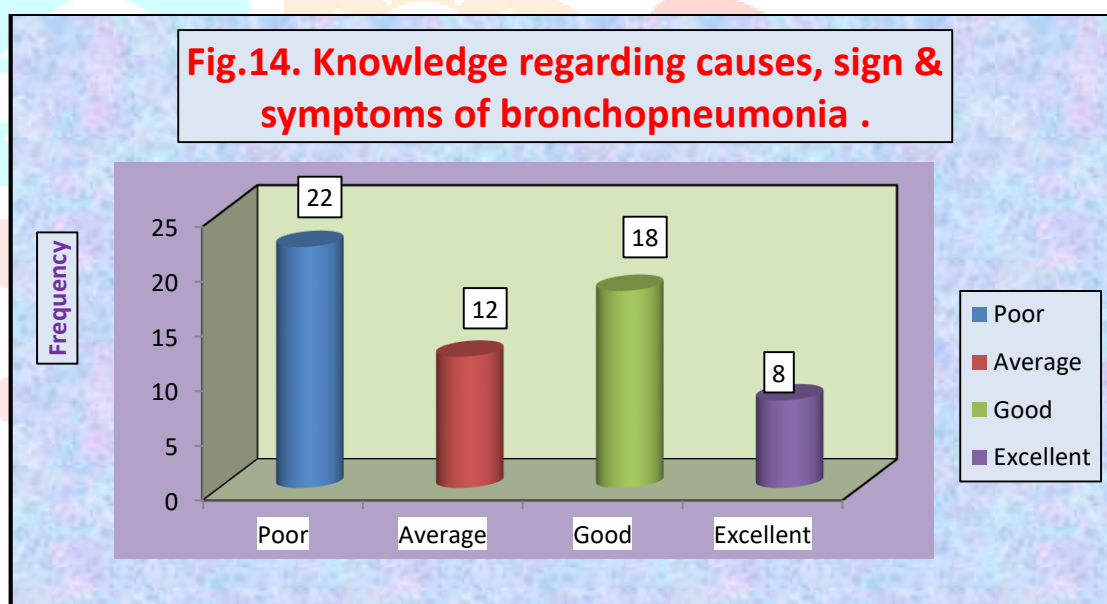


Table 13 and figure 14 illustrate assessment of area wise knowledge regarding causes, sign & symptoms of bronchopneumonia. Maximum 22(36.67%) mothers had poor knowledge, average mothers had 12(20.00%) knowledge followed by moderate 18(30%), and minimum 8(13.33%) mothers were in excellent knowledge.



**Table 14: Assessment of level of knowledge regarding concepts of treatment of bronchopneumonia.**

N=60

<b>Table 14: Assessment of knowledge regarding concepts of treatment of bronchopneumonia.</b>			
Groups		Freq	Percentage
Poor	0-25%	16	26.67
Average	26-50%	19	31.67
Good	51-75%	15	25.00
Excellent	76-100%	10	16.67
Total		60	100.00

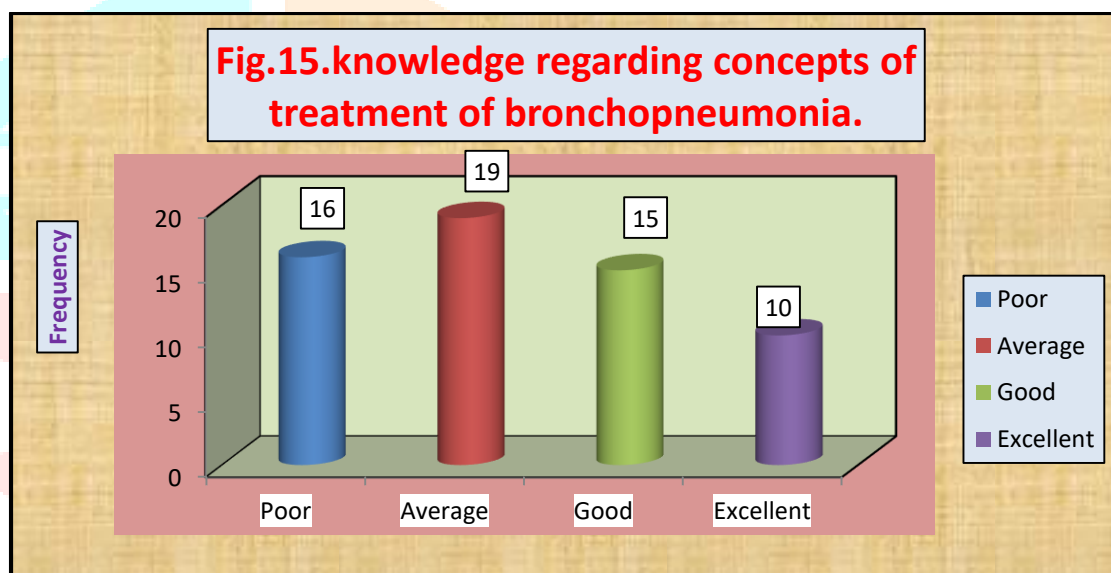


Table 14 and figure 15 Depicts assessment of area wise knowledge regarding concepts of treatment of bronchopneumonia..Majority 19(31.67%)mothers had average knowledge followed by poor knowledge 16(26.67), with good knowledge 15(25%) mothers and minimum 10(16.67%) were having excellent knowledge.

**Table 15: Assessment of level of knowledge regarding prevention & complication of bronchopneumonia.**

*N=60*

<b>Table 15: Assessment of knowledge regarding prevention &amp; complication of bronchopneumonia.</b>			
Groups		Freq	Percentage
Poor	0-25%	9	15.00
Average	26-50%	27	45.00
Good	51-75%	9	15.00
Excellent	76-100%	15	25.00
Total		60	100.00

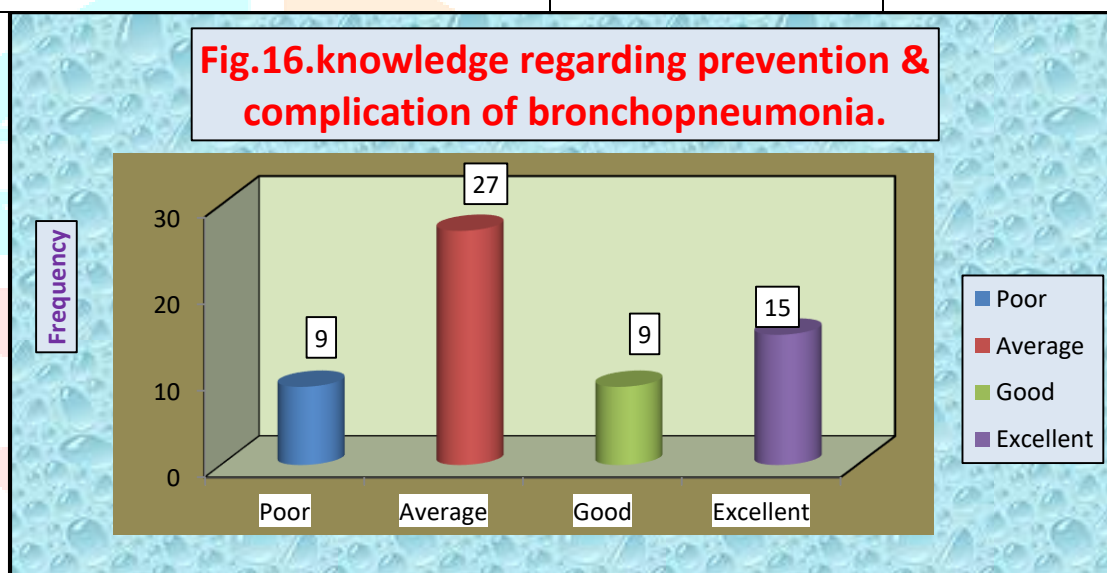


Table 15 and figure 16, explains assessment of area wise knowledge regarding prevention & complication of bronchopneumonia, Highest 27(42%) subject had average knowledge followed by 15(25%) subjects with excellent knowledge. 9(15%) subjects had good and poor knowledge respectively.

**Table 16: Assessment of Practices –A To reduce fever at home .***N=60*

<b>Table 16: Practice - A To reduce fever at home.</b>			
Groups		Freq	Percentage
Poor	0-25%	3	5.00
Average	26-50%	23	38.33
Good	51-75%	31	51.67
Excellent	76-100%	3	5.00
Total		60	100.00

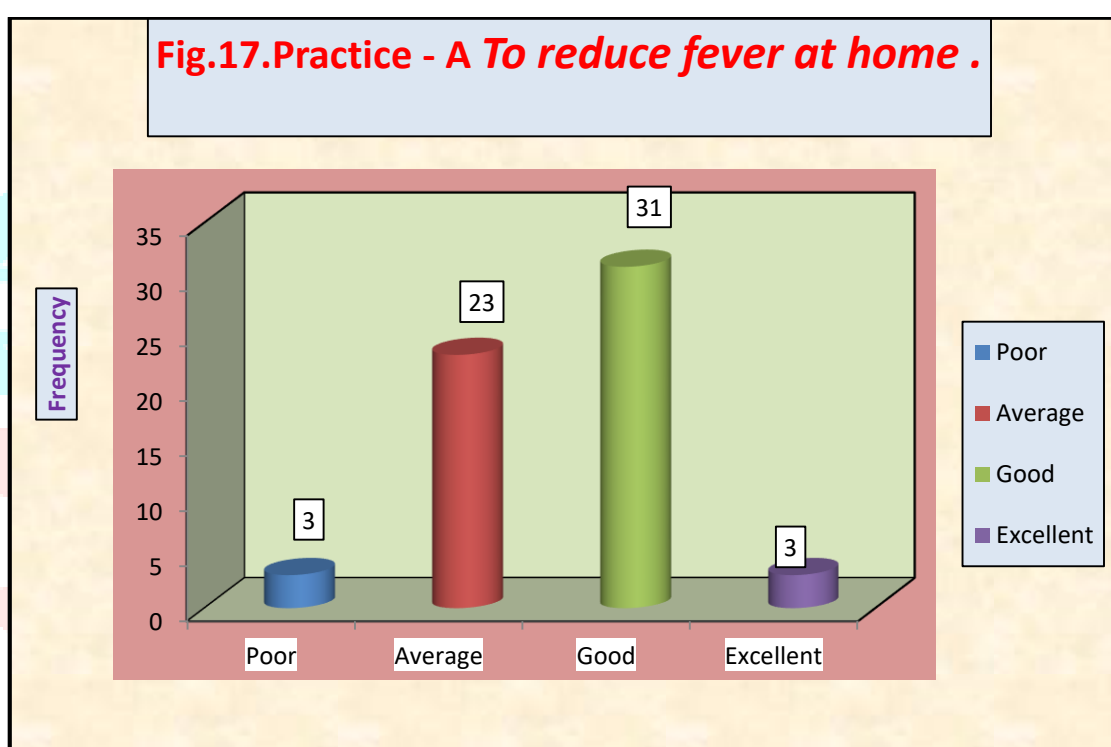


Table 16 and figure 17, Illustrate assessment of area wise practices (A) To reduce fever at home, Highest 31(51.67%) subject had good knowledge followed by 23(38.33%) subjects with Average knowledge, 3 (5%) subjects had poor and excellent knowledge range respectively.

**Table 17: Assessment of Practices –B To reduce cold and cough at home.**

N=60

<b>Table 17: Practice – B , To reduce cold and cough at home .</b>			
Groups		Freq	Percentage
Poor	0-25%	8	13.33
Average	26-50%	24	40.00
Good	51-75%	24	40.00
Excellent	76-100%	4	6.67
Total		60	100.00

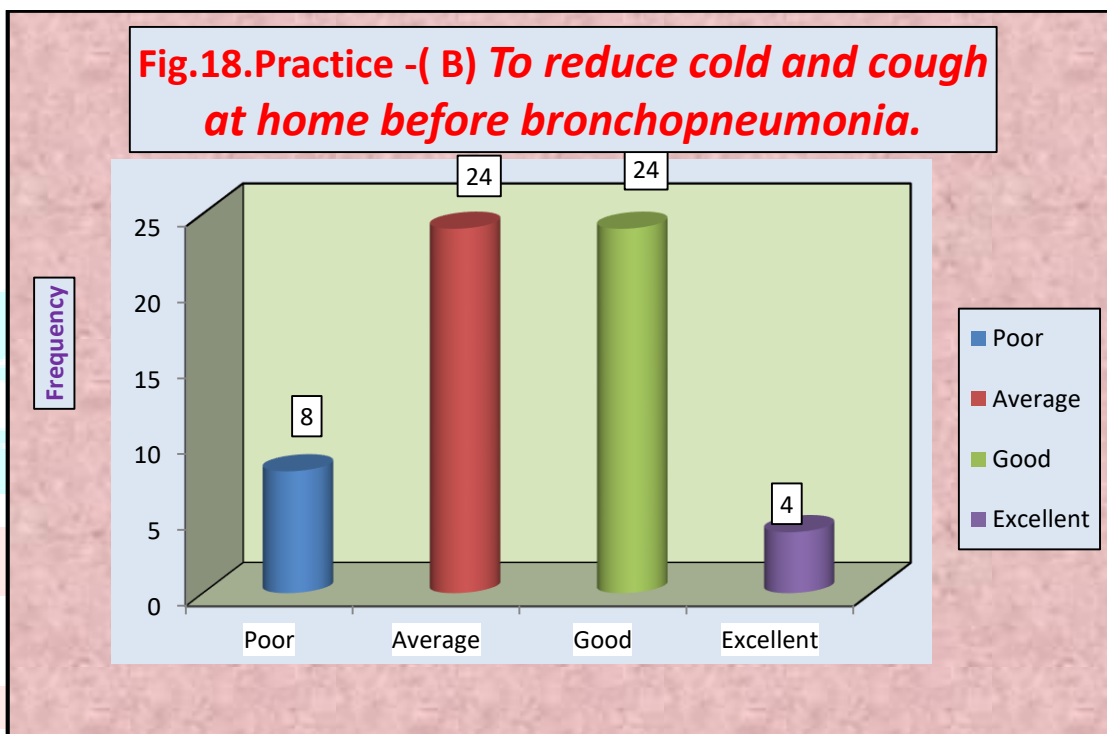


Table 17 and figure 18, Explains assessment of area wise practices to reduce cold and cough at home before bronchopneumonia 24 (40%) subject had average and good practices respectively followed by 8(13.33%) subjects with poor practices. 4(6.67%) subjects had excellent practices range .

**Table 18: Assessment of Practices –C To Provide comfort and reduce breathing difficulty at home.**

N=60

<b>A) Table 18 Practice – C , To treat breathing difficulty at home</b>			
Groups		Freq	Percentage
Poor	0-25%	7	11.67
Average	26-50%	21	35.00
Good	51-75%	31	51.67
Excellent	76-100%	1	1.67
Total		60	100.00

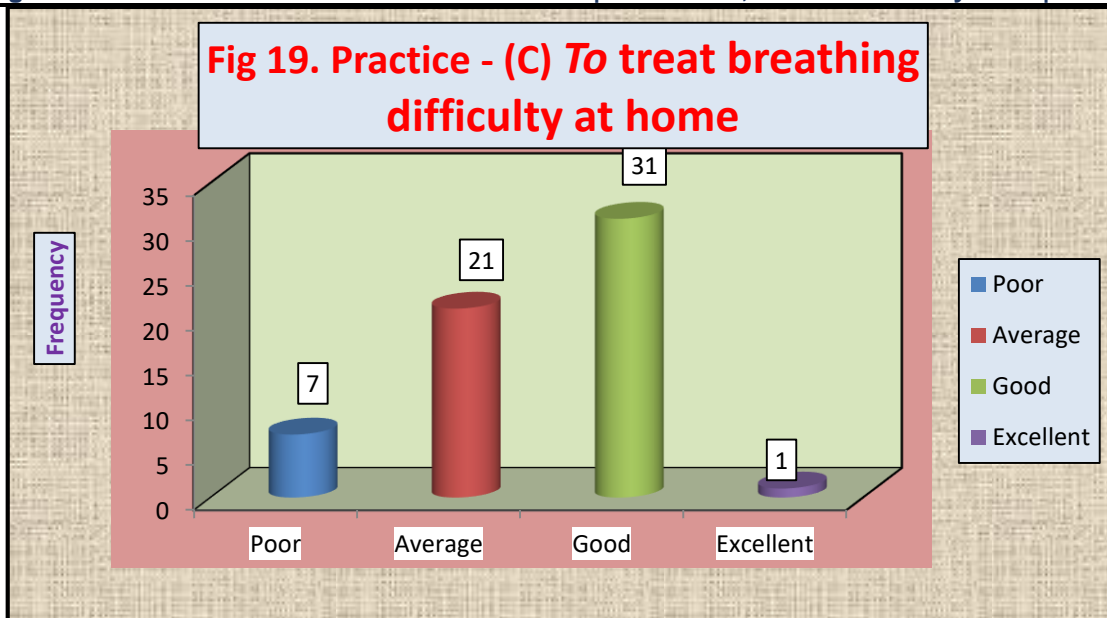


Table 18 and figure 19, Explains assessment of area wise practices regarding providing comfort and reduce breathing difficulty at home by mothers of under five children , Highest 31(51.67%) subject had good practices followed by 21(35%) subjects with average practices . 7(11.67%) subjects had poor practices ,and excellent 1(1.67%) practices range.

**Part II - Assessment of overall knowledge and practices level**

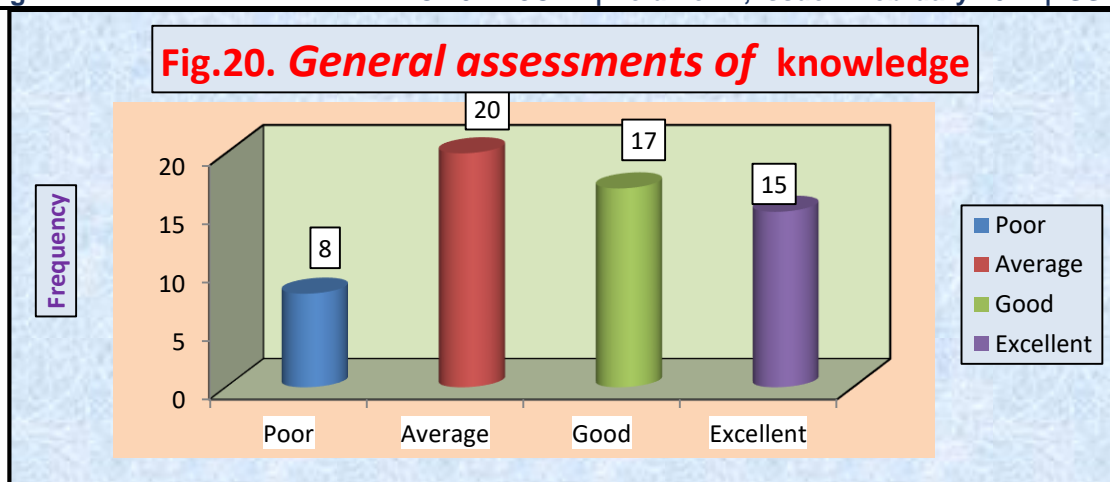
This below Table and Graph deals related to assessment of the knowledge in terms of frequency and percentage.

**ASSESSMENT OF LEVEL OF OVERALL KNOWLEDGE .**

*Table 19: General assessments of Knowledge*

N=60

Knowledge			Freq	Percentage
Groups				
Poor	0-25%		8	13.33
Average	26-50%		20	33.33
Good	51-75%		17	28.33
Excellent	76-100%		15	25.00
Total			60	100.00
Knowledge		Minimum Score		04
		Maximum Score		20
		Average		12.55



The table 19 and Figure 20, shows that in knowledge scores, 8(13.33%) of subjects were having poor knowledge, 20(33.33%) were having average knowledge and 17(28.33%) subjects were having good knowledge remaining 15(25%) were having excellent knowledge. Minimum score was 04; maximum score of pre test was 20 and mean score was 12.55.

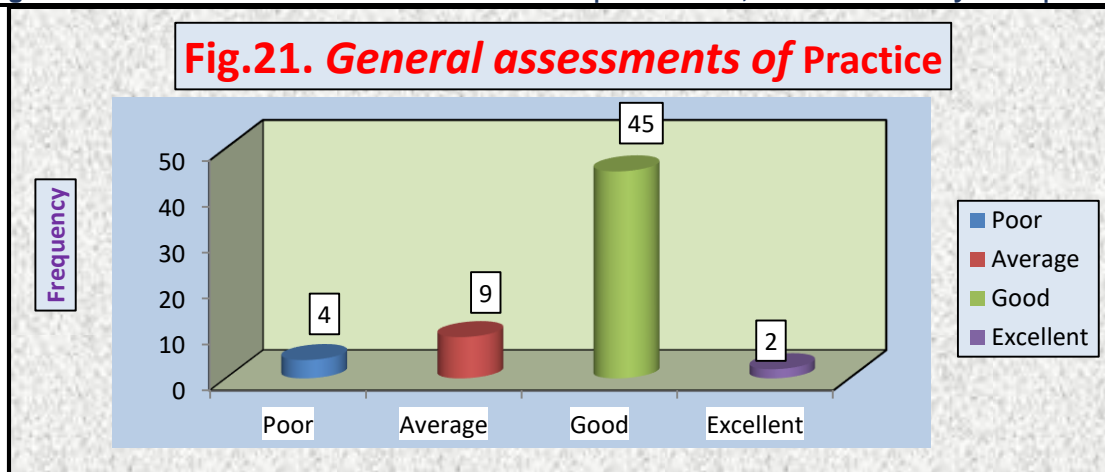
All the knowledge tables above indicate that the mothers of under five children under study were having average knowledge regarding prevention of bronchopneumonia.

#### ASSESSMENT OF LEVEL OF OVERALL PRACTICES.

The Table 20 and Graph 19 deals related to assessment of the practices in terms of frequency and percentage

**Table 20: General assessments of Practice**

<i>Table 20: General assessments of Practice</i>			
Groups		Freq	Percentage
Poor	0-25%	4	6.67
Average	26-50%	9	15.00
Good	51-75%	45	75.00
Excellent	76-100%	2	3.33
Total		60	100.00
Practice		Minimum Score	08
		Maximum Score	25
		Average	16.11



The table 20 and Figure 21 Shows that in Practice scores,45(75%) of subjects were doing good practice, 9(15%)were doing average practice and remaining 4(6.67%) subjects were doing poor practice and 2(3.33%) doing excellent practices . Minimum score was 08; maximum score of pre test was 25 and mean score was 16.11.

**Part III CORRELATION BETWEEN KNOWLEDGE AND PRACTICE**

**SCATTER DIAGRAM**

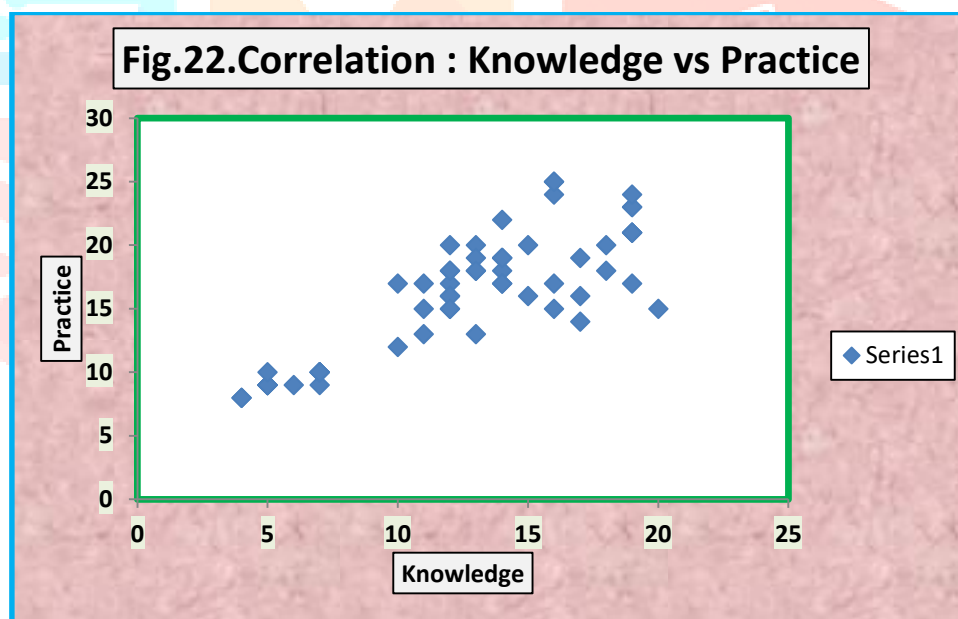


Figure 22 :- The scatter diagram shows the positive correlation between the knowledge and practice.

The Pearson’s correlation coefficient between the knowledge scores and the practice scores was 0.83. That means, as knowledge regarding prevention of bronchopneumonia increases the practice score also increases.



## SECTION III

## ASSOCIATION OF KNOWLEDGE AND PRACTICES SCORE IN RELATION TO DEMOGRAPHIC VARIABLES

This section deals with the association of knowledge scores with selected demographic variables regarding prevention of bronchopneumonia among mothers of under five children admitted with their child in wards and attending CWC, Pediatric OPD's.

Analysis and interpretation of data is done to find out association of knowledge and practices score with selected demographic variables .

**H<sub>1</sub>**:- The will be significant association between knowledge and practices with selected demographics variables.

**Part I** This part deals with Chi square test used to find out the association of knowledge.

<b>Table no 21. Chi Square Test to find out the association of knowledge.</b>									
Sr. No	Variable	Groups	Knowledge			Chi Square	d. f.	p value	Significance
			Poor	Average	Good				
1	Age	15-20	4	5	2	6.36	6	0.38	Not Significant
		21-25	6	7	7				
		26-30	3	7	3				
		above 30	1	7	8				
2	Educational status	Primary	7	16	5	12.82	6	0.046	Significant
		Secondary	4	8	6				
		Graduate	3	3	6				
		Post graduate	0	2	3				
3	Religion	Hindu	5	10	11	6.62	6	0.35	Not Significant
		Muslim	5	10	5				
		Christian	1	3	4				
		Any other	3	3	0				
4	Occupation	Housewife	4	13	11	23.47	6	0.00	Significant
		Labourer	8	9	0				
		Business	2	4	3				
		Service	0	0	6				
5	Type of family	Nuclear	2	11	9	15.67	4	0.00	Significant
		Joint family	8	15	11				
		Extended Family	4	0	0				
6	Monthly income	5000 to 10,000	4	8	2	23.43	6	0.00	Significant
		10,001 to 15,000	3	15	3				
		15,001 to 20,000	6	2	8				

		above 20,000	1	1	7				
7	<b>history of any respiratory disease</b>	Yes	7	21	17	6.19	2	<b>0.045</b>	<b>Significant</b>
		No	7	5	3				
8	<b>No of children under five years</b>	One	4	13	6	7.31	4	0.12	Not Significant
		Two	6	10	5				
		More Than Two	4	3	5				
9	<b>type of house</b>	Pakka House	6	6	16	23.00	6	0.00	<b>Significant</b>
		kachha house	4	12	1				
		Movable dwelling	3	1	0				
		Any other	1	7	3				
10	<b>source prefer to cook</b>	LPG GAS	6	16	20	14.46	4	0.01	<b>Significant</b>
		Chullha	6	7	0				
		Electric heater	0	0	0				
		Any other	2	3	0				

\*  $p < 0.05$ , i.e. there is significant association

Table no 21:- Illustrate that Occupation, Type of family Monthly income, History of respiratory infection, Type of house and Source prefer to cook were having Significant association with knowledge score and remaining variables are non significant.

**Part I** This part deals with Chi square test used to find out the association Practices.

**Table no 22. Chi square test to find out the association Practices.**

PRACTICES									
Sr. No	Variable	Groups	Poor	Average	Good	Chi Square	d.f.	p value	Significance
1	Age	15-20	4	5	2	7.71	6	0.26	Not Significant
		21-25	6	10	4				
		26-30	3	10	0				
		above 30	1	11	4				
2	Educational status	Primary	7	18	3	10.75	6	0.10	Not Significant
		Secondary	4	11	3				
		Graduate	3	2	4				
		Post graduate	0	5	0				
3	Religion	Hindu	5	17	4	4.25	6	0.64	Not Significant
		Muslim	5	11	4				
		Christian	1	5	2				
		Any other	3	3	0				
4	Occupation	Housewife	4	18	6	9.89	6	0.12	Not Significant
		Labourer	8	8	1				
		Business	2	6	1				
		Service	0	4	2				
5	Type of family	Nuclear	2	17	3	16.68	4	<b>0.00</b>	<b>Significant</b>

Sr. No.	Variable	Groups	Practice			Chi Square	d.f.	p value	Significance
			Poor	Average	Good				
7	Type of family	Joint family	8888	19199	7	16.68	4	0.00	Significant
		Extended Family	444	0	0				
6	Monthly income	5000 to 10,000	4	9	1	18.43	6	0.01	Significant
		10,001 to 15,000	3	18	0				
		15,001 to 20,000	6	4	6				
		above 20,000	1	5	3				
7	history of any respiratory disease	Yes	7	28	10	8.14	2	0.02	Significant
		No	7	8	0				
8	No of children under five years	One	4	17	2	5.07	4	0.27	Not Significant
		Two	6	12	3				
		More than two	4	7	5				
9	type of house	Pakka House	6	13	9	17.03	6	0.01	Significant

Sr. No.	Variable	Groups	<u>Practice</u>			Chi Square	d.f.	p valu	Signifi cance
			Poor	Average	Good				
9	Type of house	kachha house	4	12	1				
		Movable dwelling	3	1	0				
		Any other	1	10	0				
10	source prefer to cook	LPG GAS	6	26	10	9.36	4	0.053	Not Significant
		Chullha	6	7	0				
		Electric heater	0	0	0				
		Any other	2	3	0				

Table no 22:- Illustrate that Type of family ,Monthly income ,History of respiratory infection and Type of house were having Siginfant association with Practices score and remaning variables were non significant .

**Part II** This part deals with comprassion for group wise means, ANOVA was conducted to check the significant difference in the groupwise average knowledge scores of the demographic variable.Before calculating the F value alternative hypothesis ( $H_1$ ) is stated as below

$H_2$  .. There is significant difference between the groups of demographic variable with respect to knowledge and practices.

Table.23 COMPARISON OF THE GROUPWISE KNOWLEDGE SCORE FOR DEMOGRAPHIC

## VARIABLE BY ANOVA

Sr. No.	Variable	Groups	N	Mean	df	F value	F table value	p value	SIGNIFICANCE
1	Age	15-20	11	11	3,56	2.07	2.77	0.11	Not Significant
		21-25	20	11.85					
		26-30	13	12.07					
		above 30	16	14.87					
2	Educational status	Primary	28	11.42	3,56	1.80	2.77	0.15	Not Significant
		Secondary	18	12.66					
		Graduate	9	13.88					
		Post graduate	5	16					
3	Religion	Hindu	26	13.11	3,56	1.82	2.77	0.15	Not Significant
		Muslim	20	11.95					
		Christian	8	14.62					
		Any other	6	9.33					
4	Occupation	Housewife	28	13.14	3,56	7.98	2.77	0.00	Significant
		Labourer	17	9.52					
		Business	9	12.44					
		Service	6	18.5					
5	Type of family	Nuclear	22	14	2,57	5.98	3.16	0.00	Significant
		Joint family	34	12.38					
		Extended Family	4	6					

Sr. No.	Variable	Groups	N	Mean	df	F value	F table value	p value	Significance
6	Monthly income	5000 to 10,000	14	11.28	3,56	3.06	2.77	0.04	Significant
		10,001 to 15,000	21	11.85					
		15,001 to 20,000	16	12.31					
		above 20,000	9	16.55					
7	history of any respiratory disease	Yes	45	13.44	1,58	7.48	4.01	0.01	Significant
		No	15	9.86					
8	No of children under five years	One	23	12.43	2,57	0.38	3.16	0.68	Not Significant
		Two	21	12.04					
		More than two	16	13.37					
9	type of house	Pakka House	28	13.85	3,56	3.18	2.77	0.03	Significant
		kachha house	17	11.05					
		Movable dwelling	4	7.75					
		Any other	11	13.27					
10	source prefer to cook	LPG GAS	42	13.85	2,57	6.79	2.77	0.00	Significant
		Chullha	13	9.23					
		Electric heater	0	0.00					
		Any other	5	10.20					

Table 23 Depict the comprassion of group wise means of knowledge with demographic variable like Occupation, Type of family, Monthly Income, History of respiratory infection, Type of house, Source prefer to cook were siginifiacnt and remaing demographic variables are non significant.



Hence alternate hypothesis ( $H_1$ ) is accepted concludes that there was significant difference

in the group wise average score of knowledge .

**TABLE.24 COMPARISION OF THE GROUPWISE PRACTICES SCORE FOR DEMOGRAPHIC VARIABLE BY ANOVA.**

Sr. No	Variable	Groups	N	Mean	Df	Fvalue	Ftable value	P value	Significance
1	Age	15-20	11	15.18	3,56	1.08	2.77	0.36	Not significant
		21-25	20	15.85					
		26-30	13	15.15					
		Above 30	16	17.87					
2	Educationl status	Primary	28	14.96	3,56	1.14	2.77	0.34	Not significant
		Secondary	18	16.72					
		Graduate	9	17.77					
		Post graduate	5	17.4					
3	Religion	Hindi	26	16.23	3,56	0.77	2.77	0.51	Not significant
		Muslim	20	15.9					
		Christain	8	17.87					
		Any Other	6	14					
4	Occupation	Housewife	28	16.64	3,56	2.20	2.77	0.10	Not significant
		Labourer	17	14					
		Business	9	16.44					
		Service	6	19.16					
5	Type of family	Nuclear	22	17.4	2.57	5.80	3.16	0.01	Significant
		Joint Family	34	16.08					
		Extended Family	4	9.25					

Sr. No.	Variable	Groups	N	Mean	df	F value	F table value	p value	Significance
6	Monthly income	5000 to 10,000	14	14.78	3,56	1.07	2.77	0.36	Not Significant
		10,001 to 15,000	21	15.71					
		15,001to 20,000	16	16.62					
		above 20,000	9	18.22					
7	history of any respiratory disease	Yes	45	17.17	1,58	10.41	4.01	0.00	Significant
		No	15	12.93					
8	No of children under five years	One	23	15.43	2,57	0.75	3.16	0.47	Not Significant
		Two	21	15.95					
		More than two	16	17.31					
9	type of house	Pakka House	28	17.32	3,56	2.38	2.77	0.08	Not Significant
		kachha house	17	15.17					
		Movable dwelling	4	11.25					
		Any other	11	16.27					
10	source prefer to cook	LPG GAS	42	17.26	2,57	4.67	2.77	0.01	Significant
		Chullha	13	13.15					
		Electric heater	0	0.00					
		Any other	5	14.20					

Table 24 Illustrate comprasion of group wise means for the variables such as Type of family ,History of respiratory Disease, Source prefer to cook food are significant and remaning variables means score of practices are not significant.

Hence alternate hypothesis ( $H_1$ ) is accepted, concludes that there was significant difference in the group wise average score of practices.

## SUMMARY, FINDINGS, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter presents brief summary of the study and its significant findings. It also includes the implications and recommendations for further study.

The aim of the study was, assess the knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children. The design used for the study was descriptive design. The study was conducted at Public hospital of metropolitan city. The Sample size of the study was 60 mothers of under five children's.

### SUMMARY

About 33.33% mothers had average knowledge ,28.33% had good knowledge ,13.33% had poor knowledge , followed by 25% mothers of under five had excellent knowledge regarding prevention of bronchopneumonia .If we see the over all practices to prevent the bronchopneumonia were 75% of mothers had good practices ,15% follow average practices,6.67% doing poor ,followed by 3.33% were doing excellent practices by mothers of under five children ,Hence there is positive correlationship between knowledge and practices i.e 0.83.

The present study was conducted with a quantitative approach- Descriptive survey. The study subjects were 60 selected by Non-probability Purposive sampling. Assessment of knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children was done.

The findings of the present study are discussed on the basis of demographic characteristics and objectives.

### Statement of the Problem:-

“A descriptive study to assess the knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet.”

**OBJECTIVES OF THE STUDY:**

1. To assess the knowledge & practices regarding prevention of bronchopneumonia among the mothers of under five children.
2. To identify the co-relationship between the knowledge practices with their selected demographic variables.
3. To develop and provide Information booklet on prevention of bronchopneumonia for mother's of under five children's.

**HYPOTHESIS**

H<sub>1</sub> .. There is significant difference between average scores of knowledge and practices.

with respect to demographic variable .

H<sub>2</sub> .. There is significant difference between the groups of demographic variable with respect to knowledge and practices.

**CONCEPTUAL FRAMEWORK**

In the present study, a conceptual framework based on Health Belief Model (modified from Hochbaum, Rosenstock, and Kegels (1950) was prepared. To assess the knowledge and practices of mothers of under five regarding acute respiratory infection and prevention of bronchopneumonia and the management of acute respiratory infection.

The findings of the study aimed at the identification of learning needs of mothers regarding knowledge and practices of management of children with acute respiratory infection and prevention of bronchopneumonia and to develop an information booklet.

**REVIEW OF LITERATURE**

Review are cited under following headings:

- A) Studies related to incidence and prevalence of respiratory infection .
- B) Studies related to risk factors in bronchopneumonia .
- C) Studies related to lower respiratory infection.

d) Studies on domiciliary management at all levels of respiratory infections.

E) Studies on knowledge ,practices of acute respiratory infection.

F) Studies related to prevention of bronchopneumonia.

G) Studies related to educational programme for better patient outcome

## RELIABILITY AND PILOT STUDY

The reliability of the knowledge tool was determined Split Half Method of Reliability, the tool was administered to 06 samples. Reliability of the knowledge tool was found to be 0.84 and for the practice tool was 0.81.

The pilot study was conducted, to assess the feasibility of the study and to decide the statistical analysis and practicability of research. It was found feasible.

## METHODOLOGY

The research approach for this study was quantitative and research design was Descriptive study . The study was conducted in paediatric wards, OPD and CWC of selected Metropolitan city .Non –probability purposive sampling technique was used for selection of subjects The subject size was 60, and met the inclusion criteria listed by the investigator. In this study there were demographic variables i.e. age, religion, education, occupation etc and the research variable was knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children .In this study, the reliability coefficient was calculated by methods of internal consistency i.e. Split – half method. It is denoted by ‘r’. Reliability coefficient of knowledge was 0.84 and Reliability coefficient of practices is 0.81.

In this study the tool was scrutinized and validated by a group of 10 experts from various fields like paediatrician , child health nursing ,Ayurveda doctor, & Statistics.

A pilot study was carried out on 6 subjects in week period from the paediatric wards, OPDs and CWC in order to ensure feasibility and the practicability of the research methodology and the tool.

The findings of the pilot study show that the overall Mean knowledge of mothers of under five children 14.17 and Sd 4.75 and Mean practices of mothers of under five was 15.33 and Sd was 3.93 regarding prevention of bronchopneumonia

## MAJOR FINDINGS OF THE ,MAIN STUDY AND DISCUSSION

The main study was carried out in Paediatric wards and Pediatric OPDs ,CWC of metropolitan city. Subject were selected from Paediatric wards ,CWC ,Paediatric OPDs and questionnaire were administered to the mothers of under five children and data collected from the subjects. Demographic data were analysed and presented using frequency, percentage, and graphs. Descriptive statistics were used like mean and standard deviation. To find out association between knowledge and practices with selected demographic variables , Chi square was used, and use ANOVA to know the comparison of the group wise knowledge and practices score.

The following are the major findings of the study.

### Section –I

#### Demographic Variables:

1. According to age, in the study most of them 25(33.33%) were between 21-25 years of age group, 16(26.67%) were above 30 years of age, 13(21.67%) between 26-30 years and remaining 11(18.33%) in age group 15-20 years.
2. According to educational status in the study most of them 28(46.67%) were with primary, 18(30%) of them were with secondary, 9(15%) were graduates and remaining 5(8.33%) were having post graduates.
3. According to Religion, 26(43.33%) were Hindu, 20(33.33%) were Muslim, 8(13.33%) Christian and remaining 6(10%) were from the other religions.
4. According to Occupation of the mothers of under five maximum 28(46.67%) were housewife's, 17(28.33%) labourers, 9(15%) were having business and remaining only 6(10%) were doing service.
5. According to Type of family of the mothers of under five maximum 34(56.67%) were from the joint family, 22(36.67%) from the nuclear family and 4(6.67%) were from the extended families.
6. According to monthly income of family, 21(35%) were in the group 10001 to 15000, 16(26.67%) in the group 15001 to 20000, 14(23.33%) were in the group 5000 to 10000 and remaining 9(15%) in the income level more than 20000 per month.

7. 45(75%) mothers of under five have the history of the respiratory disease to their children and 15(25%) without any history.
8. In the study 23(38.33%) mothers with only one child in under five, 21(35%) were with two Childs and remaining 16( 26.67 %) were having more than two children in under five.
9. In the study 28(46.67%) mothers having pakka house, 17(28.33%) having kachha house, 4(6.67%) with movable dwelling and remaining 11(18.33%) were having other type of house.
10. In the study 42(70%) mothers using LPG gas for cooking, 13(21.67%) were using chullha and 5(8.33%) mothers were using other type of source for cooking.

## SECTION-II

**Part I:-**This section deals with assessment of knowledge and practices and analysis of data related to section wise assessment of the knowledge and Practice regarding prevention of bronchopneumonia among mothers of under five children , in terms of frequency and percentage.

### **Part II:- General assessments of Knowledge and practices**

**A.**Knowledge scores shows, 8(13.33%) of subjects were having poor knowledge, 20(33.33%) were having average knowledge ,17(28.33%) were having good knowledge and remaining 15(25.00%) subjects were having Excellent knowledge. Minimum score was 04; maximum score was 20 and mean score was 12.55.

**B.**Practice scores shows, 4(6.67%) of subjects were having poor practice, 9(15.00%) were having average practice and remaining 45(75.00% ) subjects were having good practice, and 2(3.33%) subjects were having Excellent knowledge.

Minimum score was 08; maximum score was 25 and mean score was 16.11.

### **Part III:-Correlation of knowledge and practices .**

The scatter diagram shows the positive correlation between the knowledge and practice. The Pearson's correlation coefficient between the knowledge scores and the practice scores was 0.83. That means, as

knowledge regarding prevention of bronchopneumonia increases the practice score also increases. There is need to improve knowledge for better practice.

### **SECTION-III**

Chi square is used to find the association exist between the scores of knowledge and practices with selected demographic variable of the participants.

#### **Part I:-Association of Knowledge and practices with demographic variables.**

##### **A. Association of knowledge with demographic variables.**

For the variables like Educational status, Occupation, Type of Family, Monthly Income, history of any respiratory disease, type of house, source prefer to cook, the p value of the association test with knowledge was less than 0.05. Concludes that, there was significant association of these demographic variables with knowledge of the mothers of under five.

For the variables like Age, religion, No of children under five years the p value of the association test with knowledge was more than 0.05. Concludes that, there was no significant association of these demographic variables with knowledge of the mothers of under five.

##### **B. Association of Practice with demographic variables**

For the variables like Type of Family, Monthly Income, history of any respiratory disease, type of house, the p value of the association test with practice was less than 0.05. Concludes that, there was significant association of these demographic variables with practice of the mothers of under five.

For the variables like Age, Educational status, religion, Occupation, source prefer to cook, No of children under five years the p value of the association test with practice was more than 0.05. Concludes that, there was no significant association of these demographic variables with practice of the mothers of under five.



**Part II:- A.Deals with the comprasion for group wise means knowledge by ANOVA**

**1.AGE VARIABLE:-** The average knowledge score for the age group 15-20 was 11,for age group 21-25 was 11.85, for the age group 26-30 was 12.07 and for the age above 30 it was 14.87,The F test value for the ANOVA test was 2.07 with table value 2.77. The p value of the test was 0.11, concluded that there was no significant difference in the average scores.

**2.EDUCATIONAL VARIABLE :-** The average knowledge score for the educational status of Primary education was 11.42,Secondary education was 12.66, followed by Graduate were 13.88,and Post graduate were 16. The F test value for the ANOVA test was 1.80 with table value 2.77. The p value of the test was 0.15, concluded that there was no significant difference in the average scores.

**3.RELIGION :-** The average knowledge score for the hindu 13.11,Muslim was 11.9,Christain was 14.62 and 9.33 was other religion,The F test value for the ANOVA test was 1.82 with table value 2.77,The p value of the test was 0.15, concluded that there was no significant difference in the average scores.

**4.OCCUPATION :-** The average knowledge score for housewife was 13.14,labour was 9.52 , business was 12.44 and services was 18.5,The F test value for the ANOVA test was 7.98 with table value 2.77.The p value of the test was 0.00, Concluded that there was significant difference in the average scores.

**5.TYPE OF FAMILY:-**The average knowledge score for Neclure family was 14, Joint family was 12.38 ,and Extended Family was 6,The F test value for the ANOVA test was 5.98 with table value 3.16.The p value of the test was 0.00, Concluded that there was significant difference in the average scores.

**6.MONTHLY INCOME :-**The average knowledge score for monthly income of 5000-10000 was11.28 , 10001-15000 was 11.85, 15001-20000 was 12.31 and above 20,000 was 16.55. The F test value for the ANOVA test was 3.06 with table value 2.77. The p value of the test was 0.04, Concluded that there was significant difference in the average scores.

**7. HISTORY OF ANY RESPIRATORY INFECTION TO CHILD :-**The average knowledge score for Yes was 13.44, No was 9.86,The F test value for the ANOVA test was 7.48 with table value 4.01.The p value of the test was 0.01, Concluded that there was significant difference in the average scores.

**8.NO OF CHILDREN UNDER FIVE YEARS:-** The average knowledge score for those who have one child under five was 12.43, two child was 3.16, and more than two child was 13.37. The F test value for the ANOVA test was 0.38 with table value 3.16. The p value of the test was 0.68, Concluded that there was No significant difference in the average scores.

**9.TYPE OF HOUSE :-**The average knowledge score for mothers who live in Pakka House was 13.85, Kachha house was 11.05, Movable dwelling was 7.75 and other type was 13.27, The F test value for the ANOVA test was 3.18 with table value 2.77. The p value of the test was 0.03, Concluded that there was significant difference in the average scores.

**10.SOURCE PREFER TO COOK :-**The average knowledge score for source prefer to cook food using LPG was 13.85, Chullha was 9.23, and using other mode of cook was 10.20, Electric heater was 0, The F test value for the ANOVA test was 6.79 with table value 2.77, The p value of the test was 0.00, Concluded that there was significant difference in the average scores.

## **Part II:- B .Deals with the comparison for group wise means Practices by ANOVA .**

**1.AGE VARIABLE:-** the average practices score for the age group 15-20 was 11(15.18), for age group 21-25 was 20(15.85), for the age group 26-30 was 13(15.15) and for the age above 30 it was 16(17.87), The F test value for the ANOVA test was 1.08 with table value 2.77. The p value of the test was 0.36, concluded that there was no significant difference in the average scores.

**2.EDUCATIONAL VARIABLE :-** The average practices score for the educational status of Primary education was 28(14.96), Secondary education was 18(16.72), followed by Graduate were 9(17.77), and Post graduate were 5(17.4). The F test value for the ANOVA test was 1.14 with table value 2.77. The p value of the test was 0.34, concluded that there was no significant difference in the average scores.

**3.RELIGION :-** The average practices score for the Hindu 26(16.23), Muslim was 20(15.9), Christian was 8(17.87) and 6(14) was other religion, The F test value for the ANOVA test was 0.77 with table value 2.77, The p value of the test was 0.15, concluded that there was no significant difference in the average scores.

**4.OCCUPATION :-** The average practices score for housewife was 28(16.64), labour was 17(14), business was 9(16.44) and services was 6(19.16), The F test value for the ANOVA test was 2.20 with table value 2.77. The p value of the test was 0.10, Concluded that there was No significant difference in the average scores.

**5. TYPE OF FAMILY:-**The average practices score for Nuclear family was 22(17.4), Joint family was 34(16.08), and Extended Family was 4( 9.25),The F test value for the ANOVA test was 5.80 with table value 3.16.The p value of the test was 0.01, Concluded that there was significant difference in the average scores.

**6.MONTHLY INCOME :-**The average practices score for monthly income of 5000-10000 was 14(14.78), 10001-15000 was 21(15.71), 15001-20000 was 16(16.62) and above 20,000 was 9(18.22). The F test value for the ANOVA test was 1.07 with table value 2.77. The p value of the test was 0.36, Concluded that there was no significant difference in the average scores.

**7.HISTORY OF ANY RESPIRATORY INFECTION TO CHILD :-**The average practices score for Yes was 45(17.17), No was 15(12.93),The F test value for the ANOVA test was 10.41 with table value 4.01.The p value of the test was 0.00, Concluded that there was significant difference in the average scores.

**8.NO OF CHILDREN UNDER FIVE YEARS:-** The average practices score for those who have one child under five was 23(15.43), two child was 21(15.95),and more than two child was 16(17.31). The F test value for the ANOVA test was 0.75 with table value 3.16. The p value of the test was 0.47, Concluded that there was No significance difference in the average scores.

**9.TYPE OF HOUSE :-**The Average practices score for mothers who live in Pakka House was 28(17.32),Kachha house was 17(115.17), Movable dwelling was 4(11.25) and other type was 11(16.27),The F test value for the ANOVA test was 2.38 with table value 2.77.The p value of the test was 0.08, Concluded that there was No significance difference in the average scores.

**10.SOURCE PREFER TO COOK :-**The average practices score for source prefer to cook food using LPG 11(17.26) was,Chullha was 13(9.23), and using other mode of cook was 5(14.20),Electric heater was 0, The F test value for the ANOVA test was 4.26 with table value 2.77, The p value of the test was 0.01, Concluded that there was significant difference in the average scores.

## IMPLICATIONS OF THE STUDY

The findings of this study have implication for nursing service, nursing education, nursing administration and nursing research.

### 1. Nursing services

Nurses are in the best position to give information regarding various aspects of prevention of bronchopneumonia, as the mother's of under five children, will be free to reveal their problems to nurses. Since, the present study showed that almost all the Maximum mother's of under five children had poor knowledge, few had average knowledge and very few had good knowledge and Maximum mother's of under five children was having average practices about prevention of respiratory symptoms at home; nurses in changing era have to prepare themselves to provide care and give appropriate information to the mother's of under five children. There is a greater demand for getting the resources extracted from mothers of under five children, by the nurses in the form of knowledge. Realizing the health care needs of people, nurses must incorporate scientific based knowledge.

### 2. Nursing administration

Nurses have to play a multi dimensional role and their skills have to be combined with a specialized knowledge base to ensure improved health status of the under five children. The nurses could participate in public awareness programmes through mass media and administration should take initiative to organize educational programmes for health personnel regarding various aspects of bronchopneumonia. Nurses, in turn could improve the knowledge of mother's of under five children for a good prognosis in future.

### 3. Nursing education

The findings of the study indicated that more emphasis should be placed in the nursing curriculum on prevention of bronchopneumonia. Periodic prevention of bronchopneumonia awareness programmes should be arranged for nursing students which would be a great help for promoting themselves as well as other who are in need.

#### 4. Nursing research

The study will be a motivation to beginning investigators to conduct similar studies on a large scale. The findings of the study serve as a basis for the professional and the student nurses to conduct further studies on bronchopneumonia.

#### CONCLUSION

The present study was conducted to assess the Knowledge and Practices regarding prevention of bronchopneumonia among mothers of under five children admitted with their children in pediatric wards and attending paediatric OPDs and CWC in Metropolitan city with a view to develop an Information booklet. The research approach adopted for this study was descriptive method. The subject size was 60. Non-probability purposive technique was used for subject selection. The investigator used Self response questionnaire to assess the knowledge and Self reported checklist was used to assess the practices regarding prevention of bronchopneumonia. The data were analyzed and interpreted by applying statistical methods. The conclusions were drawn on the basis of the findings of the study, they are as follows:-

##### 1.CO-RELATION KNOWLEDGE AND PRACTICES

1.The Pearson's correlation coefficient between the knowledge scores and the practice scores was 0.83. That means, as knowledge regarding prevention of bronchopneumonia increases the practice score also increases.

##### 2.ASSOCIATION KNOWLEDGE AND PRACTICES

I) Occupation, Type of family Monthly Income, History of respiratory infection, Type of house and Source prefer to cook were having Significant association with knowledge score and remaining variables are non significant.

II) Type of family, Monthly Income, History of respiratory infection and Type of house were having Significant association with Practices score and remaining variables were non significant.

Hence ( $H_1$ ) is accepted, concludes that there was significant association between average score of Knowledge and practices with respect to demographic variable

### 3.COMPARISION OF GROUP WISE MEANS OF KNOWLEDGE AND PRACTICES..

The comparison of group wise means of knowledge with demographic variable like Occupation, Type of family, Monthly Income ,History of respiratory infection,Type of house,Source prefer to cook were significant and remaining demographic variables are non significant.

The Comparison of group wise means of practices for the variables such as Type of family ,History of respiratory Disease, Source prefer to cook food are significant and remaining variables means score of practices are not significant.

Hence Alternate hypothesis ( $H_2$ ) is accepted, concludes that there was significant difference in the group wise average score of Knowledge and practices.

#### LIMITATION

The limitations of the study are:

1. The present study is limited to 60 mothers of under five children.
2. Mothers of under five children who are admitted with their children in Paediatric wards ,attending OPD's and CWC.
- 3.Mothers of under five who are available at the time of the study.

#### RECOMMENDATIONS

The following recommendations were made for further research, based on the study findings:-

1. A similar study could be taken up with a large subject for assessing the knowledge and practices regarding prevention of bronchopneumonia for making a more valid generalization.
2. A similar study could be conducted to assess the knowledge and practices regarding prevention of bronchopneumonia among care takers who are attending OPD's
3. A comparative study could be conducted to assess between the home management and hospital management regarding prevention of bronchopneumonia .

4. A comparative study could be conducted to assess the incidence of bronchopneumonia in government and private OPD's.
5. A study could be done to develop the health education packages on prevention of Pneumonia and evaluate its effectiveness.
6. A comparative study could be conducted to assess the knowledge, Practices and Attitude of mothers towards home management of symptoms reliving respiratory infection with different demographic characteristics.
7. A study could be conducted to assess the operationally feasible and cost-effective treatment of bronchopneumonia in low resource settings.

## **SUMMARY**

The present chapter includes the summary & the major findings of the study, Nursing implications, conclusion, delimitations and recommendations.

## **PERSONAL EXPERIENCE**

The investigator had a very enlightening experience during the study. Due to the timely suggestions and expert opinion of the research guide, the investigator was able to move in the right direction in the study. Although, initially investigator was very apprehensive regarding how to conduct the study, research guide gave right direction and constant encouragement

This study allowed investigator to interact with several mothers of under five children who are admitted in paediatric wards with their child and attending OPD's and CWC with their children problem. During the study investigator got a better understanding about bronchopneumonia as well the mothers of under five children were eager to know about the investigations and treatment and prevention of bronchopneumonia. The subjects, with whom the investigator interacted, expressed satisfaction as they get knowledge about concept, investigations, treatment and prevention of bronchopneumonia. The investigator was thankful to the authorities of institution from where permission was granted for the research study. The investigator is satisfied with the research work. It has gone very smoothly without many problem. It was a rich learning experience. The investigator had first-hand experience of going through all the phases of the research work. A pilot study was



very motivating and encouraging phase. On the whole, the study was challenging and at the end, a sense of achievement was present. The investigator had achieved the objectives of the study within a stipulated time period.

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**INSTITUTIONAL ETHICAL COMMITTEE APPROVAL**

**CERTIFICATE**

This is to certify that the research proposal of dissertation topic: “A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet.”

was discussed in the ethical committee meeting.

Ethical committee has unanimously approved the dissertation topic of

..... This work will be done under the guidance & supervision of

your guide.....



**LETTER REQUESTING EXPERT OPINION TO ESTABLISH CONTENT AND CONSTRUCT VALIDITY OF THE RESEARCH TOOL**

To, \_\_\_\_\_

Subject: Request for expert opinion and suggestions to establish content and construct validity of research tool

Respected Sir/Madam I..... , Final Year M.Sc. Nursing in child health Nursing student at institute .....have selected the following topic for my dissertation to be submitted to Maharashtra University of Health Sciences, Nashik, in partial fulfilment for Master of Science Degree in Nursing

**PROBLEM STATEMENT: “A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet.”**

Herewith I have enclosed,

- 1) Brief resume of intended work



2) Research tool containing demographic data

3) Evaluative criteria for the content validity of the tool

4) Certificate of Validation I kindly request you to go through the items and give your suggestions and opinions about appropriate and validity of the tool, suggest modifications, additions and deletions, if any in the remark column.

Thanking you.Forwarded through

Your’s faithfully,

Principle

(.....)

**CERTIFICATE OF CONTENT VALIDITY**

This is to certify that Mr. /Mrs -----, student of Master of Science in Nursing of speciality child health nursing at.....

Institute has developed the tool for topic entitled, “A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet.” I have gone through the content of proposed study tool developed by investigator and found the tool have included all dimensions of study and found to be in order.

I further certify that the research tool is valid for this study.

Overall Remarks:

Date :

Place :

Name of Expert:

Designation :

Signature :



**PERMISSION LETTER TO CONDUCT THE RESEARCH STUDY**

To,.....

.....

**Subject:** - Regarding permission to conduct the research study.

**Reference:-** 1. Ethical committee approval certificate

2. M.U.H.S. approval letter.

Respected Sir/ Madam,

As per above mentioned subject and reference, Mr./Mrs.....

Final year M.Sc. nursing student paediatric nursing from our institute wish to conduct a research study titled, "A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet." as a part of partial fulfilment of M.Sc. Nursing degree under Maharashtra University of Health Sciences, Nasik.

All the ethical aspects will be followed while conducting the research study. So kindly extend the necessary permission.

Thanking You.

Yours faithfully,

Signature of principle

EDITOR’S CERTIFICATE

This is to certify that, I Mr. /Mrs..... have edited the dissertation of Mr./Mrs. ...., a post graduate student of ..... on the below mentioned topic, in partial fulfilment of the requirement for the degree of Master of Science in Nursing.

Topic: - “A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet.”

I have been edited for English language and necessary corrections have been made by me wherever necessary.

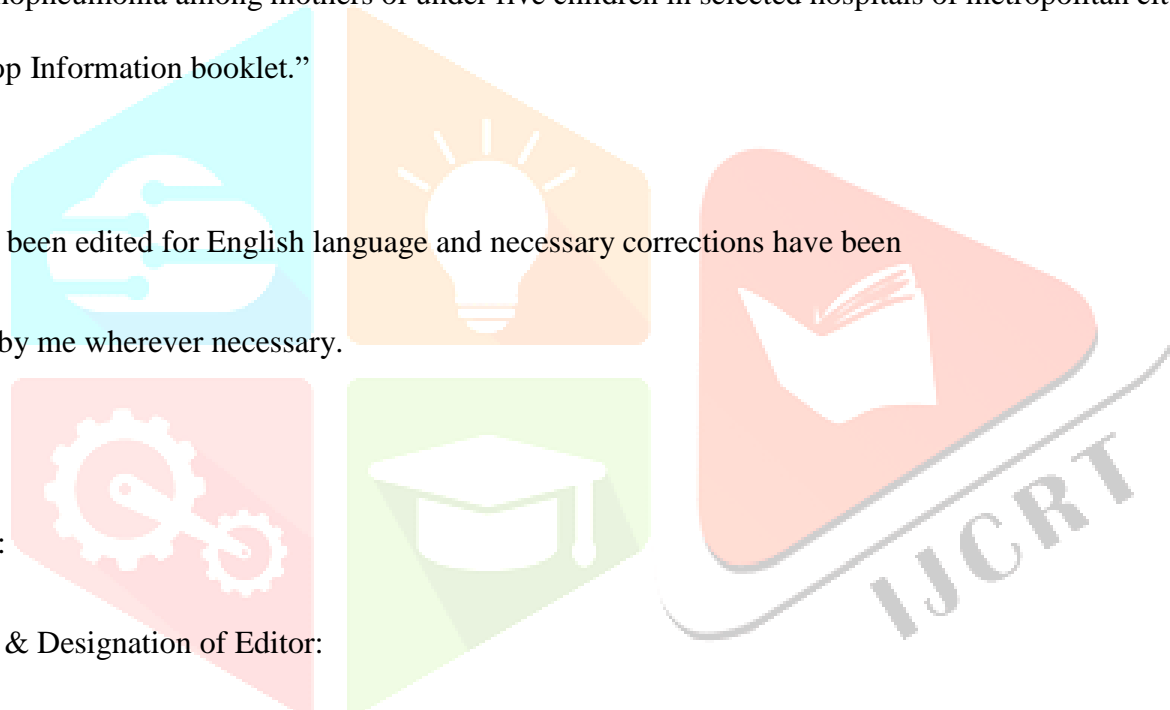
Date :

Place :

Name & Designation of Editor:

Editor’s signature :

Stamp/Seal



TRANSLATION CERTIFICATE

This is to certify that, I Mr. /Mrs..... have translated the  
 research tool of Mr./Mrs. ...., a post graduate student of  
 ..... on the below mentioned topic, in partial fulfilment of the requirement for  
 the degree of Master of Science in Nursing.

Topic: - “A Descriptive study to assess knowledge and practices regarding prevention of  
 bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to  
 develop Information booklet.”

I have been translated in Marathi language.

Date :

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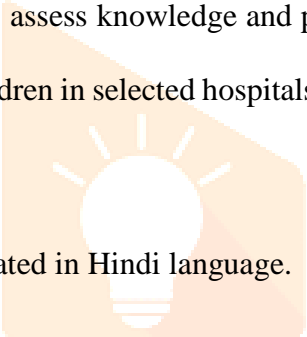
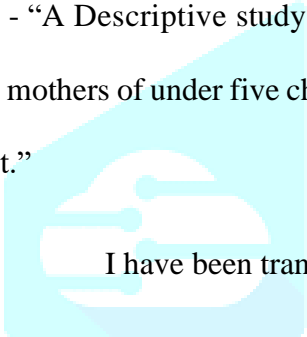
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TRANSLATION CERTIFICATE

This is to certify that, I Mr. /Mrs..... have translated the research tool of Mr./Mrs. ...., a post graduate student of ..... on the below mentioned topic, in partial fulfilment of the requirement for the degree of Master of Science in Nursing.

Topic: - "A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet."



I have been translated in Hindi language.

Date :



Place :



Name & Designation of Editor:

Editor's signature :

Stamp/Seal

**INFORMED WRITTEN CONSENT****Participant Code** :- 

**TITLE:** “A Descriptive study to assess knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information booklet.”

Participant’s Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No.: \_\_\_\_\_

I hereby give my consent to participate in the above mentioned study. I have been explained about the study in my own language and I had the opportunity to consider the information, ask questions and get the answers satisfactorily.

I will be assessed for knowledge and Practices regarding prevention of bronchopneumonia, to develop information booklet.

I understood that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected. I have been explained that all the information will be kept confidential. I am willing to participate in the same.

Signature of Investigator

Signature of Participant

# laerh p~

## sahyaaogata kad %

izdYi 'kh"kZd & मेट्रोपोलिटन शहर में Mcaunao hue अस्पताल में 5 o"kkZ ko ÝmrÀmo  
~ÀÀmom की मातों km

kÝmm Amja ब्रॉनकपोन्युमोनिया के ~mÀmd पद्धतियों का मूल्यांकन करनम Amja एक  
ekfgrhiqfLRkdk fođlhr krnaa

### sahyaaogata

### ukma

%

XX  
XX

### ptk%

XX  
XX

### laidZ

dzekad%

XX  
XX

eom sahBaagalta }pr ilaKo hue kaya-maom Apnaa sahyaaoga doNaoka  
AaSvaasana do dota\$ dotl hU; mauJao [sa ÁbaMQa kaya-ko  
baaromaom pUrl jaanakarI mauJao samaJa maom Aayao eosao  
SabdaoM maom dl ga[- hO AaOMr mauJao maorI samasyaaAaMo ka  
inarasana krnao kl AaOr savaala puC` ,nao kl pUrl C,uT dl ga[- hO

maora sahBaaga pUrl trh sva[cCaj, sao hO AaOr maom iksal Bal kao[-  
Bal karna na doto hue AaOr maoro kanauina h@k pr kao[- Bal pirNaama  
na krto hue Apnaa sahBaaga inakalanaoM ko ilae svaMt~ hu; yah  
mauJao batayaa gayaa hO yah saarI jaanakarI gauPt rKI jaaeMgal AaOr  
[saka ]pyaaoga isaf- [sa saMSaaoQana ko ilae ikYaa jaaeMgaa yah  
mauJao samaJaayaa gayaa hO AaOr maOM saMSaaoQana kaya-  
maom sahBaaga laonao ko ilae raja,l hu;







**SEMI STRUCTURED QUESTIONNAIRE**

**Instructions:**

- All questions are compulsory.
- Select only one option & By placing ( ✓ ) mark.
- The correct response carries one mark.
- The information / responses provided will be kept confidential.

**SUBJECT CODE NO;**

**SECTION - A**  
**DEMOGRAPHIC DATA**

**1. What is your Age in years ?**

1.1) 15- 20 years

1.2) 21-25 years

1.3) 26-30 years

1.4) above 30

**2. What is your Educational status?**

2.1) Primary

2.2) Secondary

2.3) Graduate

2.4) Post graduate

**3. What is your Religion ?**

3.1) Hindu

3.2) Muslim

3.3) Christian

3.4) Any other (specify)

**4. What is your Occupation?**

4.1 Housewife

4.2 Labourer

4.3 Business

4.4 Service

**5. Which Type of family you have ?**

5.1) Nuclear

5.2) Joint family

5.3) Extended Family.

**6. What is your Monthly income of your family?**

6.1) 5000 to 10,000

6.2) 10,001 to 15,000

6.3) 15,001 to 20,000

6.4) above 20,000

**7. Any history of any respiratory disease to your child ?**

7.1) Yes

7.2) No

**8. How many No of children under five years do you have?**

8.1) One

8.2) Two

8.3) More than two

**9. Which type of house you live?**

9.1 Pakka House

9.2 kachha house

9.3 Movable dwelling

9.4 Any other specify.....

**10. Which source you prefer to cook your food ?**

10.1 LPG GAS

10.2 Chullha

10.3 Electric heater

10.4 Any other specify.....

**SECTION –I I SEMI STRUCTURED QUESTIONNARE**

**Part – A ) Assessment of knowledge regarding concept of acute respiratory infection.**

**1.What do you mean by Respiratory Problem?**

1.1.Common cold, cough, fever.

1.2. Difficulty in breathing.

1.3. Inflammation of respiratory tract.

1.4. Liver infection

**2.Which Organ involves in pneumonia?**

2.1. Heart

2.2. Kidney

2.3. Lungs

2.4. Liver

**3. What is Pneumonia?**

3.1. Infection of liver.

3.2. Infection of heart.

3.3 Infection of lungs.

3.4 Infection of kidney.

**4. Which age group is very often affected with Pneumonia?**

4.1 Children

4.2 Adolescent

4.3 Middle age

4.4 Old age

**5.Which of the following is NOT the leading cause of death among under five children?**

5.1 Pneumonia

5.2 Diarrhoea

5.3 Tuberculosis

5.4 Mental retardation

**Part –B) Assessment of knowledge regarding causes and sign & symptoms of bronchopneumonia.**

**6.What are the Causes of Respiratory Problem?**

6.1. Low immunity.

6.2 Loose motion.

6.3 Obesity

6.4. Pain in abdomen.

**7.What are the causes of Bronchopneumonia?**

7.1Cold Environment.

7.2.Virus and bacteria.

7.3 Curse of god.

7.4hereditary

**8.Which of the following are the Risk factors of bronchopneumonia?**

8.1 Unhygienic conditions.

8.2 Malnutrition

8.3 Immuno compromised.

8.4 All above.

**9. What will be the child’s condition during fast breathing?**

9.1Irritable, Rest less,& Refuse feed.

9.2.Not Irritable,& Refuse feed

9.3. Sleeplessness and refuse feed.

9.4. Refuse feed.

**10.What are the signs and symptoms in bronchopneumonia ?**

10.1 Wheezing,Congestion, Sneezing,chestindrawing.

10.2 Skin rashes.

10.3 loose motion.

10.4 Pain in abdomen.

**Part–C) Assessment of knowledge regarding treatment of bronchopneumonia.**

**11. How the symptom of bronchopneumonia can be relieved?**

11.1 Antibiotics, O2 therapy,

11.2 Rest and Comfort.

11.3 Above two

11.4. None of them

**12.Which Position provide to reduce breathing difficulty?**

12.1 Prone position

12.2 Prop up position

12.3 Side lying position

12.4 supine position

**13.What are the effect of bronchopneumonia ?**

13.1 Growth Impairment.

13.2 Mal nourishment.

13.3 Chances of respiratory infection.

13.4 All the above.

**14. In which off the following conditions you will take your child to hospital ?**

14.1 High grade fever.

14.2 Cough with fast breathing.

14.3 Above two.

14.4 None of them.

**15.How Bronchopneumonia can be treated?**

15.1 By Medical treatment.

15.2 By Home treatment.

15.3 By holy water.

15.4 By prayer

**Part–D) knowledge regarding prevention and complications of bronchopneumonia.**

**16..How you prevent respiratory infections?**

16.1 Good hygiene.

16.2 Vaccination.

16.3 Good diet.

16.4 All the above

**17.How will you prevent the spread of Bronchopneumonia?**

17.1 Sepration of infected child from non infected child.

17.2 Immunisation

17.3 Early treatment

17.4 All the above

**18.Which type of diet given in bronchopneumonia ?**

18.1 Warm liquids.

18.2 High protein and caloric diet

18.3 Two of the above

18.4 None of the above

**19.Which Vaccine are given to prevent Pneumonia?**

19.1 Oral polio vaccine.

9.2 PCV (Pneumococcal vaccine)

19.3 Rota virus vaccine

19.4 Typhoid vaccine

**20. What are the problems of bronchopneumonia ?**

20.1 Liver abscess

20.2 Pancreatitis

20.3 Asthma , Brain infection, emphysema.

20.4 Typhoid.

**SECTION -III**

To assess the Practices of mother's of under five regarding prevention of bronchopneumonia by using Self Reported Checklist.

**SELF REPORTED CHECKLIST**

<b>SR NO</b>	<b>ITEMS</b>	<b>YES</b>	<b>NO</b>
<b>A</b>	<b>PRACTICES TO REDUCE FEVER AT HOME</b>		
1.	Do you Give taped sponging during fever?		
2.	Do you give holy water to drink and apply ashes to reduce fever?		
3	Are you Provide any herbal remedies to reduce fever?		
4.	Do you Give antipyretic & analgesic medicine purchased by near by chemist during fever?		
5.	Do you Use left over medicine available at home during fever?		
6.	Do you Seeks care from traditional /folk healer to reduce fever?		
7.	Do you Seeks care from a health care facility ?		
8.	Do you give plenty of oral fluids to drink to reduce fever ?		
9	Do you loosen clothes or remove excessive clothes of baby during to reduce fever?		
<b>B</b>	<b>PRACTICES TO REDUCE COLD &amp; COUGH, CONGESTION AT HOME</b>		
1.	Do you Give milk mix with turmeric ?		
2.	Do you Apply vicks vaporub on nose and chest to reduce cold ?		
3.	Do you Give Stem inhalation?		
4.	Are you apply turmeric paste on chest and forehead ?		
5.	Do you give tulisi or tulisi juice to eat?		
6.	Do you put garlic garland around neck to reduce cold and congesition?		
7.	Do you apply garlic oil on chest and neck area ?		
8.	Do you give honey with jagaary?		

9.	Do you Give Jesth madh to reduce cough ?		
10.	Are you giving mixture of lemon , cinnamon powder to reduce cold and cough?		
11.	Do you Give chawanprash?		
12.	Do you give Boiled Egg to reduce cold ?		
<b>C</b>	<b>PRACTICES TO TREAT BREATHING DIFFICULTY.</b>		
1)	Do you apply Coconut oil mix with camphor massage over chest?		
2)	Do you apply Eucalyptus oil on chest ?		
3)	Do you apply Hot Oil massage?		
4)	Do you apply Mustard oil ?		
5)	Do you provide hot fermentation by bishoop's weed's on chest and back?		
6)	Do you give flaxseed(Alsi seeds) to eat child ?		
7)	Do you keep's baby warm with extra cloths?		
8)	Do you elevate baby head during sleep?		
9)	Do you provide medication prescribe by doctor?		



**SECTION II DEMOGRAPHIC VARIABLE ANSWER KEY AND SCORING FOR QUESTIONS OF****THE TOOL**

Question No	Answer/score	Score
Demographic data Section-A(total question -10)	No answer key for section- A	
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-

**SECTION II- (Part A,B,C,D ) Semi Structured questionnaire on Knowledge**

<b>Knowledge</b>		
<b>Question number</b>	<b>Correct answer</b>	<b>Score</b>
1	1.3	1
2	2.3	1
3	3.3	1
4	4.1	1
5	5.4	1
6	6.1	1
7	7.2	1
8	8.4	1
9	9.1	1
10	10.1	1
11	11.3	1
12	12.2	1
13	13.4	1
14	14.4	1
15	15.1	1
16	16.4	1
17	17.4	1

18	18.3	1
19	19.2	1
20	20.3	1
<b>TOTAL SCORE</b>		20

### SCORING FOR KNOWLEDGE AS FOLLOWS

Each Correct option score	1
Each wrong option score	0

Maximum Score = 20, Minimum Score = 0

Section II Scoring given i.e Assessment of knowledge , are categorised Grades according to Marks obtained and Percentage by participants are as follows:-

GRADE	MARKS	PERCENTAGE
Poor knowledge	Below 5	0-25%
Average knowledge	5-10	26-50%
Good knowledge	10-15	51-75%
Excellent knowledge	15-20	76-100%

### SECTION III , SCORING FOR PRACTICES AS FOLLOWS

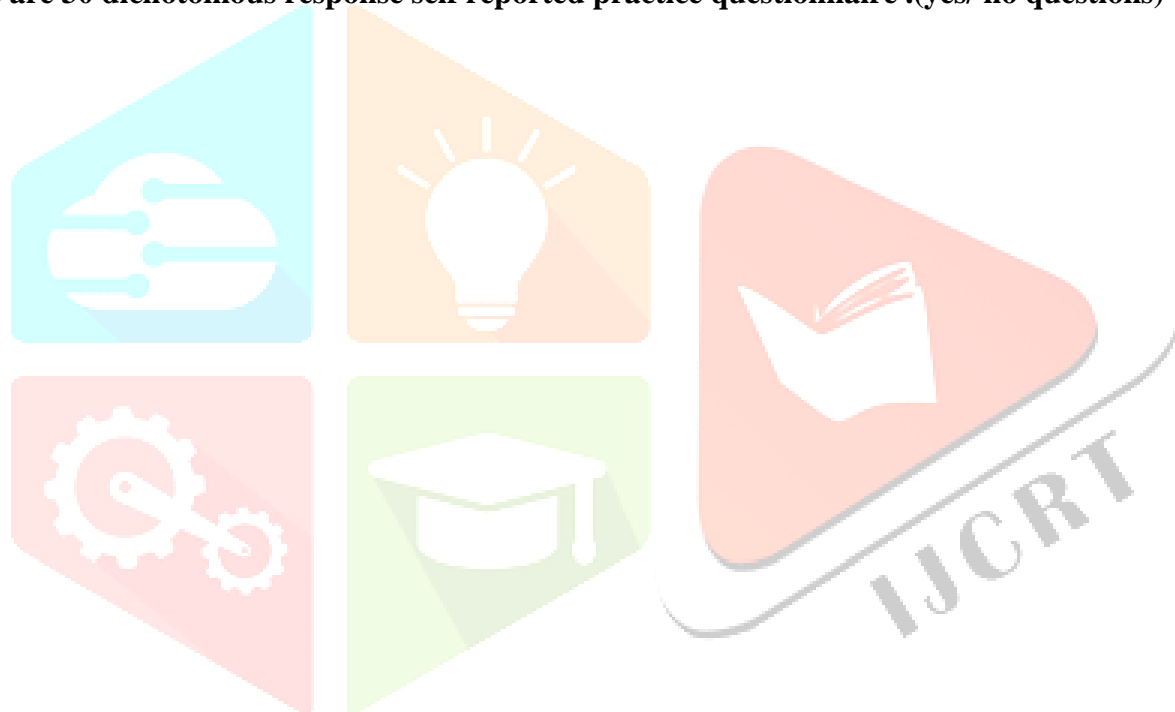
RESPONSES	SCORE
YES	1
NO	0

Section III Scoring is categorized as Grading according to the Percentages and Marks obtained by

participants are as follows:-

PERCENTAGE	GRADE	SOCRE
76-100%	Excellent	21 and Above
51-75%	Good	15-21
26-50%	Average	8-15
0-25%	Poor	Less than 8

There are 30 dichotomous response self reported practice questionnaire .(yes/ no questions)



**COPY OF BLUE PRINT FOR RESEARCH TOOL**

Lak'kks/ku lkfgR;

CONTENT	KNOWL EDGE	COMPREN SION	APPLICA TION	ANAL YSIS	SYNTHE SIS	TOTAL
Assessment of knowledge regarding concept of acute respiratory infection	1,3		-	2,4	5	25%
Assessment of knowledge regarding causes and sign & symptoms of bronchopneumonia	10	6,7	-	8	9	25%
Assessment of knowledge regarding treatment of bronchopneumonia		13	-	12,14,15	11	25%
Knowledge regarding prevention and complications of bronchopneumonia	17,19,20	18	-		16	25%
TOTAL %	30%	20%	-	30%	20%-	100%

**सूचना**

- सर्वप्रश्नसक्तीचे आहेत
- फक्त एकच पर्याय निवडा आणि लेखी मध्ये (✓) चिन्हावा
- योग्य प्रतिसाद एक आहे

- प्रदानकेलेलीमाहिती,प्रतिसादगोपनीयठेवण्यातयेईल
- आपणक कोणत्हीस्पष्टीकरणविचारण्यासमुहक आहे

सहभागीकोड

foHkkxअ

## डेमोग्राफिक डेटा

1- वर्षा मध्ये आपले वय काय आहे?

1-1½ 15 - 20 वर्षे

1-2½ 21- 25 वर्षे

1-3½ 23 -30 वर्षे

1-4½ 30 वर्षे वर

2- आपली शैक्षणिक स्थिती काय आहे?

2-1½ प्राथमि

2-2½ माध्यमिक

2-3½ पदवी

2-4½ पोस्टग्रेज्युएट

3- तुमचा धर्म काय आहे?

3-1½ हिंदू

3-2½ मुस्लिम

3-3½ ख्रिस्ती

3-4½ इतर कोणतीही (नएqn करा)

4- आपला व्यवसाय काय आहे?

4-1½ घरदके

4-2½ मजूर

4-3½ व्यवसाय

4-4½ सेवा

5- आपल्या कुटुंबाचा प्रकार कोणark आहे?

5-1½ विभक्त

5-2½ संयुक्त कुटुंब

5-3½ विस्तारित कुटुंब

6- आपल्या कुटुंबाची मासिक उत्पन्न किती आहे?

6-1½ 5000 ते 10]000

6-2½ 10]001 ते 15]000

6-3½ 15]001 ते 20]000

6-4½ 20]000 पेक्षा अधिक

7- आपल्या मुलाला सश्वसनक्रियाचा कोणत्याही \_kkसाचा इतिहास हेÈkk काय ?

7-1½ होय

7-2½ नाही

8- पाच वर्षां खालील मुलांची संख्या किती आहे?

8-1½ एक

8-1½ दोन

8-3½ दोनपेक्षा जास्त

9- तुम्ही कोणत्या घरात रहात आहात?

9-1½ पक्के घर

9-2½ कच्चे घर

9-3½ स्थलांतरण

9-4½ कोणतीही इतर नेqn djk



10-कोणता स्रोत आपण आपला अन्नशिजवू इच्छित आहात?

10-1½ एल पी जी गॅस

10-2½ चुल्हा

10-3½ इलेक्ट्रिकहीटर

10-4½ कोणत्याही इतर नेण दिज- -----

## foHkkx -II

माहिती संरक्षण सूचना बदल ज्ञान

भाग v) rhoz 'olu nkgkP;k संकल्पने बाबत ज्ञानाचs eqY;kadu

1-श्वसनाच्या समस्येचा अर्थ काय आहे?

1-1½ सामान्यथंड ]खोकला]ताप

1-2½ श्वासघेण्यात अडचण

1-3½ श्वसनमार्गाचे सूज

1-4½ एकूत संसर्ग

2- कोणR;k अवयव निमोनिया मध्ये समावेश आहे?

2-1½ हn;

2-2½ मूत्रपिंड

2-3½ फुफ्फुसे

2-4½यकृत

**3 न्यूमोनिया म्हणजे काय?**

3-1½ यकृत संक्रमण

3-2½ हृदय संक्रमण

3-3½ फुफ्फुसांचे संक्रमण

3-4½ किडनीचे संक्रम

**4-कोणत्या वयोगटातील व्यक्तीस न्यूमोनिया वरखूपच परिणाम होतो?**

4-1½ मुले

4-2½ किशोरवयीन

4-3½ मध्यम वय

4-4½ वृद्धा पकाळ

**5-खालील पैकी मुलांमधील मृत्यूचे प्रमुख कारण नाही?**

5-1½न्यूमोनिया

5-2½अतिसार

5-3½टीबी

5-4½मतिमंदता

भाग C) ब्रॉन्कोपोन्यूमोनियाचे फpUg लक्षणस o dkj.ks ;kckcrP;k Kkukps eqY:kkadu-

6-श्वसना संबंधी समस्येचे काय कारण आहे?

6-1½ कमी jksxizfrdk j'kDrh

6-2½ अतिसार

6-3½ लठ्ठपणा

6-4½ उदर मध्ये वेदना

7-ब्रॉन्कोपोन्यूमोनिया चे कोणते कारणे आहेत?

7-1½ FkaM पर्यावरण

7-2½ ivaXmNau आणि जीवाणू

7-3½ ईश्वराचा शाप

7-4½ आनुवंशिक

## 8- खालील पैकी कोणत्या ब्रँचोन्यूमोनियाचे धोक्याचे घटक आहेत?

8-1½ हवा प्रदूषण

8-2½ कृषि

8-3½ कृषि

8-4½ सर्व वरील

## 9-जलद श्वास घेत असताना मुलाची स्थितीकाय असेल?

9-1½ चिडचिड]विश्रांतीकमी] आणि फीड ना कारणे

9-2½ चिडचिड आणि खाद्य पदार्थ ना कारणे

9-3½ नीरसता आणि फीड ना कारणे

9-4½ फीड ना कारणे

## 10-ब्रँचोन्यूमोनिया मध्ये चिन्हे आणि लक्षणे काय आहेत?

10-1½ घरघर]नाकबंद]शिकायेणे] छातीभरणे

10-2½ त्वचा लाल]जा

10-3½ आंखी

10-4½ ओटीपोटातवेदना

## भाग-11 - ब्रोकोपेन्युमोनियाचे उपचार संबंधी ज्ञानाचा मोबदला

## 11- ब्राँकॉनेमोनियाचे लक्षणे कसे मुक्त होऊ शकतात ?

11-1½ प्रतिजैविक] ऑक्सिजन थेरपी

11-2½ विश्रांती आणि आराम

11-3½ वरीलदोन

11-4½ त्यांच्यापैकी कोणीच नाही

## 12½ श्वास घेण्याची समस्या कमी करण्यासाठी कोणत [स्थिती आहे?

12-1½paLqmo स्थिती

12-2½ AQ-vaT basatl स्थिती

12-3½ekabmjulaa Jmaopocaa स्थिती

12-4½LAajG JAspocaa स्थिती

## 13½ब्रॉन्कोपोन्युमोनि याचा परिणाम काय आहे?

13-1½ Afrl kj

13-2½ कुपोषण

13-3½ श्वसनसंक्रमण होण्याची शक्यता

13-4½ उपरोक्त सर्व

14½खालील DAs.R;A परिस्थितीत आपण मुलाला हॉस्पिटल मध्ये घेऊन जाल ?

14-1½ उच्च स्तरावर ताप

14-2½ जलद श्वास घेताना खोकला

14-3½ दोन पेक्षा जास्त

14-4½ त्या पैकी काही ही नाही

15½ब्रोकोन्युमोनियाचा उपचार कुठे केला जाऊ शकतो?

15-1½ रुग्णालय उपचार

15-1½ घरगुती उपचार

15-1½ पवित्र पाण्याने

15-1½ प्रार्थनेने

भागडी-)ब्रोकोन्युमोनियाच्या प्रतिबंध आणि अनुषां बाबत ज्ञान

16 ½श्वसनसंक्रमणा सकसे प्रतिबंध करता?

16-1½ चांगले स्वच्छता

16-2½ लसीकरण

16-3½ चांगले आहार

16-4½वरील सर्व

## 17½ ब्रोकोन्यूमोनियाचा प्रसार कसा रोखेला तरास?

17-1½ संसर्ग झालेल्या बाळांला इक्व न्क्व बसोक

17-1½ लसीकरण

17-1½ लवकरकर लवकर उपचार

17-1½ वरील सर्व

## 18½ ब्रॉचो न्यूमोनियात कोणत्या प्रकारचे आहार दिले जाते?

18-1½ गरमपातळ पदार्थ

18-2½ उच्चप्रथिने आणि कॅलरी संबंधी आहार

18-3½ वरील दोघ

18-4½ उपरोक्त पैकी नाही

## 19½ न्यूमोनिया टाळण्यासाठी कोणती लस दिली जाते?

19-1½ ओरलपोलियोची लस

19-2½ पीसीव्ही (न्युमोकोकलस)

19-3½ रोट्टा व्हायरसची लस

19-4½ टायफॉइड लस

20½ ब्राँचन्यूमोनियाची नक्का काय आहे?

20-1½ यकृतफोड

20-2½ स्वादु पिंडाचा दाह

20-3½ दमा मेंदूचेसं सर्ग ऍफिसीमा

20-4½ टायफॉईड

### भाग-III

स्वयं-नोंदविलेल्या चेकलिस्टचा वापर करुन ब्रोन्कोपोन्यूमोनियाच्या प्रतिबंधात्मक बाबतीत पाच वर्षाखालील  
आईच्या पध्दतींचा एक करणे.

स्वयं तपासणी पर्यवेक्षकीय चेकलिस्ट

एसआर नं	आयटम	होय	नाही
a	घरावर ताप कमी काढण्यासाठीच्या पद्धती		
1	आपण ताप दरम्यान नळकक; k ik.; kus vax iqlqu dk<ता का?		
2	आपण बाळाचे ताप कमी करण्यासाठी सक/कतसंताकडील पवित्र पाणी राख अंगाराचा वापर कारता का ?		
3	आपण बाळाचे ताप कमी करण्यासाठी घरगुती जडीबुीचा उपचार करता का ?		



4	आपण मुलासाठी ताप देह क्षुब्ध केमिस्ट जवळून औषध विकत घ्यावेता का ?		
5	ताप घरी उपलब्ध औषधांचा वापर करता का		
6	आपण बाळाचे ताप कमी करण्यासाठी पारंपारिक पद्धत कडे जाता का ?		
7	आपण बाळाचे ताप कमी करण्यासाठी आरोग्य सुविधा घेता का ?		
8	आपण बाळाचे ताप कमी करण्यासाठी तोंडावाट भरपूर पाने देता का ?		
9	आपण बाळाचे ताप कमी करण्यासाठी कपडे बदलता का ?		
ब	घरात सर्दी खोकला कमी करण्यासाठीच्या पद्धती		
	आपण सर्दी खोकला कमी करण्यासाठी नाक आणि छाती वर व्हिक्स व्हापरोंब लावता का ?		
2	आपण मुलाला सर्दी खोकला साठी काढता देता का ?		
3	आपण मुलाला हळद मिश्रित दूध देता का ?		

4	आपण मुलांसाठी छाती आणि कपाळावर हळदीचा पेस्ट लावता का ?		
5	आपण मुलाला तुलीसीचा रस देता का?		
6	आपण सर्दी कमी करण्यासाठी लसूण माळ गळ्याभोवती ठेवता का ?		
7	आपण मुलाला लसूण तेल छाती आणि मान या भागात लावता का ?		
8	आपण सर्दी खोकला कमी करण्यासाठी गूळ बरोबर मध देता का ?		
9	आपण बाळाचे सर्दी खोकला कमी करण्यासाठी जेठ मध देता का ?		
10	आपण सर्दी आणि खोकला कमी करण्यासाठी लिंबू दालचिनी पावडर यांचे मिश्रण देता का ?		
11	आपण मुलाला च्यवनस्पृश देता का ?		
12	आपण सर्दी आणि खोकला कमी करण्यासाठी उकडलेले अंडे देता का ?		
क	घरचा श्वास उपचारकरी पद्धती		
1	आपण बाळाचे छातीवर कपूरच्या मिश्रणासह नारळ तेल लावता का ?		
2	आपण बाळाचे छातीवर निलगिरी तेल लावता का ?		

3	आपण बाळाचे शरीरावर गरम तेलाने मालिश करता का ?		
4	आपण बाळाचे शरीरावर मोहरीचे तेल लवता का ?		
5	आपण बाळाचे छातीवर आणि माउसोज गरम अक्सोक पक्सटली करून लवता का ?		
6	आपण बाळाला खाण्यासाठी फ्लॅक्सीड (आलसी बिया) देता का ?		
7	आपण बाळाला अतिरिक्त कपड्यांसह आपल्या बाळाला उबदार ठेवता का ?		
8	आपण बाळाला झोपरकाक डोके ओज द्जरक द्क; ?		
9	आपण बाळाला डॉक्टरांनी लिहून दिलेले औषधोपचार देता का ?		

## सुचना :

- सभी प्रश्न अनिवार्य हैं।
- इस सर्वेक्षण में भाग लेनेवालों को ऐसी बिनंती करते हैं कि उन्होंने हर सवाल के सामने दि गई चौकट में से उचित चौकट में बराबर का (✓) चिन्ह लगावे।
- प्रदान की गई जानकारी / प्रतिक्रिया गोपनीय रखी जाएगी।

विषय कोड नहीं:-----

भाग-1

## माँ के जनसंख्या की शास्त्रीय जानकारी :

1. वर्षों में आपकी आयु क्या है?

1.1) 15-20 वर्ष

1.2) 21-25 साल

1.3) 26-30 वर्ष

1.4) 30 से ऊपर


2. आपकी कितनी पढ़ाई हुई है?

2.1) प्राथमिक

2.2) माध्यमिक

2.3) पदवीधर

2.4) पदव्युत्तर

3. आपका धर्म क्या है?

3.1) हिंदू

3.2) मुस्लिम

3.3) क्रिश्चियन

3.4) कोई अन्य (निर्दिष्ट)

4. आपका व्यवसाय क्या है?

4.1 गृहिणी

4.2 कामगार

4.3 व्यापार

4.4 नौकरी

5. आपके परिवार का किस प्रकार है?

5.1) एकल परिवार

5.2) संयुक्त परिवार

5.3) विस्तारित परिवार

6. आपके परिवार की मासिक आय क्या है?

6.1) 5000 से 10,000

6.2) 10,001 से 15,000

6.3) 15,001 से 20,000

6.4) 20,000 से ऊपर

7. आपके बच्चे को किसी भी श्वसन रोग का कोई भी संक्रमण हुआ कभी ?

7.1) हाँ

7.2) नहीं

8. आप के **a** पांच साल से कम उम्र के बच्चों कितने है?

8.1) एक

8.2) दो

8.3) दो से अधिक

9. आप किस प्रकार के घर में रहते हैं?

9.1 पक्का हाउस

9.2 कच्चा घर

9.3 स्थानांतरित आवास

9.4 कोई भी अन्य निर्दिष्ट .....

10. आप कौन सा स्रोत अपना खाना खाना पकाने के लिए उपयोग करते हैं?

10.1 एलपीजी गैस

10.2 चुल्ला

10.3 इलेक्ट्रिक हीटर

10.4 कोई भी अन्य निर्दिष्ट .....

## द्वितीय सेमी संरेखण प्रश्नोत्तर

भाग ए- तीव्र रिस्पिरियार इफेक्शन के बारे में ज्ञान का आकलन

1. श्वसन समस्या का क्या मतलब है?

1.1 आम ठंड, खांसी, बुखार।

1.2 सांस लेने में कठिनाई।

1.3 श्वसन तंत्र का सूजन

1.4 जिगर संक्रमण

2. कौन सा अंग निमोनिया में शामिल होता है?

2.1 दिल

2.2 गुर्दा

2.3 फेफड़े

2.4 जिगर

3. निमोनिया क्या है?

3.1 जिगर की संक्रमण

3.2 दिल का संक्रमण

3.3 फेफड़े के संक्रमण।

3.4 गुर्दे का संक्रमण

4. कौन सा आयु समूह निमोनिया से अक्सर प्रभावित होता है?

4.1 बच्चे

4.2 किशोरावस्था

4.3 मध्य आयु

4.4 वृद्धावस्था

5. निम्न में से कौन सा बच्चों के बीच मृत्यु का प्रमुख कारण नहीं है?

5.1 निमोनिया

5.2 दस्त

5.4 तपेदिक

5.3 मानसिक मंदता

**भाग- C: - ब्रोन्कोपोन्युमोनिया का कारण और लक्षण के बारे में जानकारी का ज्ञान**

6. श्वसन समस्या के कारण क्या हैं?

6.1 कम प्रतिरक्षा

6.2 दस्त

6.3 मोटापा

6.4 पेट में दर्द

7. श्वसनीफुप्फुसशोथ के कारण क्या हैं?

7.1 सर्दी पर्यावरण

7.2. वायरस और बैक्टीरिया

7.3 ईश्वर का अभिशाप

7.4 अनुवांशिक

8. ब्रोन्कोपोन्युमोनिया के जोखिम वाले कारक निम्न में से हैं?

8.1 इंडोर वायु प्रदूषण (खाना पकाने की लकड़ी, गोबर) के कारण

8.2 भीड़ भरे घरों में रह रहे हैं.

8.3 अभिभावकीय धूम्रपान

8.4 सभी ऊपर.



9. श्वास तेजी के दौरान बच्चे की स्थिति क्या होगी?

9.1 चिड़चिड़ा, आराम कम, और भोजन से इनकार

9.2 . चिड़चिड़ापन नहीं, और भोजन से इनकार करते हैं

9.3 नीरसता और भोजन से मना करना

9.4 भोजन से इनकार करें

10. श्वसनीफुफुसशोथ के लक्षण क्या हैं?

10.1 घरघराहट, नाक बंद, छींकने, चेस्टिंड्राइंग।

10.2 त्वचा चकत्ते

10.3 दस्त

10.4 पेट में दर्द

**खंड- सी: - ब्रोन्कोपोन्यूमोनिया के उपचार के बारे में ज्ञान का आकलन।**

11. श्वसनीफुफुसशोथ के लक्षण को कैसे राहत मिली जा सकता है?

11.1 एंटीबायोटिक्स ,ऑक्सीजन थेरेपी,

11.2 आराम

11.3 ऊपर के दोनों

11.4 इनमें से कोई भी नहीं

12. कौन कौन से स्थिति श्वास कठिनाई को कम करने के लिए प्रदान करते हैं?

12.1 प्रोन स्थिति

12.2 प्रस्ताव अप स्थिति

12.3 साइड स्थिति

12.4 लापरवाह स्थिति

13. श्वसनीफुफ्फुसशोथ का क्या प्रभाव है?

13.1 ग्रोथ हानि।

13.2 कुपोषण

13.3 श्वसन संक्रमण की संभावना

13.4 उपरोक्त सभी

14. निम्न स्थितियों में से कौन-सा स्थितियां में आप अपने बच्चे को अस्पताल लेंजवोग्स?

14.1 उच्च ग्रेड बुखार।

14.2 तेज श्वास के साथ खाँसी

14.3 ऊपर के दोनों

14.4 उनमें से कोई भी नहीं

15. कौन-सा श्वसनीफुफ्फुसशोथ का उपचार किया जा सकता है?

15.1 अस्पताल के उपचार

15.2 होम उपचार

15.3 पवित्र जल से

15.4 प्रार्थना करके

खंड-डी भाग डी: - ब्रोन्कोपोन्यूमोनिया के रोकथाम और प्रतिकूल प्रभाव के बारे में ज्ञान।

16. आप श्वसन संक्रमण कैसे रोकते हैं?

16.1 अच्छी स्वच्छता

16.2 टीकाकरण

16.3 अच्छा आहार

16.4 उपर्युक्त सभी

17. आप श्वसनीफुफ्फुसशोथ के प्रसार को कैसे रोकेंगे?

17.1 गैर संक्रमित बच्चे से संक्रमित बच्चे का अलगाव

17.2 टीकाकरण

17.3 प्रारंभिक उपचार

17.4 उपरोक्त सभी

18. श्वसनीफुफ्फुसशोथ में दिया जाने वाला आहार .

18.1 गर्म तरल पदार्थ

18.2 उच्च प्रोटीन और कैलोरी आहार

18.3 ऊपर के दोनों

18.4 उपरोक्त में से कोई भी नहीं

19. न्यूमोनिया को रोकने के लिए कौन सी वैक्सीन दिया जाता है?

19.1 ओरल पोलियो वैक्सीन

19.2 पीसीवी(न्यूमोकोकल वैक्सीन)

19.3 रोटा वायरस वैक्सीन

19.4 टाइफाइड टीका

20 श्वसनीफुपफुसशोध. की क्या समस्याएं हैं?

20.1 लीवर फोड़ा

20.2 अग्राशयशोध

20.3 अस्थमा, मस्तिष्क के संक्रमण, वातस्फीति।

20.4 टाइफाइ

### खंड-III

स्वयं रिपोर्ट की गई चेकलिस्ट का उपयोग करके ब्रॉन्कोपोन्चूमोनिया की रोकथाम के संबंध में मां की प्रथाओं का निर्धारण करें।

#### स्वयं रिपोर्टिंग पर्यवेक्षण चेकलिस्ट

(अनु क्रमांक)	आइटम	हाँ	नहीं
ए	घर पर बच्चे का बुखार को कम करने के लिए करने वाले प्रथाएँ		
1	क्या आप आपके बच्चे को बुखार कम करने के लिए नल या टोटी का पानी का स्पोंगे देते हैं		
2	क्या आप बुखार को कम करने के लिए राख या पवित्र पानी देते हैं?		
3	क्या आप बुखार को कम करने के लिए किसी भी हर्बल उपचार प्रदान करते हैं?		
4	क्या आप बुखार के दौरान रसायनज्ञ के पास से खरीदे गए ज्वर हटानेवाला और दर्दनाशक दवा देते हैं?		
5	क्या आप बुखार के दौरान घर पर उपलब्ध बायां दवाओं का उपयोग करते हैं?		

6	क्या आप बुखार के लिए पारंपरिक / लोक रोगियों से देखभाल की तलाश करते हैं?		
7	क्या आप एक स्वास्थ्य देखभाल सुविधा से देखभाल चाहते हैं?		
8	क्या आप बुखार को कम करने के लिए बहुत अधिक मौखिक तरल पदार्थ देते हैं?		
9.	क्या आप बुखार को कम करने के दौरान कपड़ों को ढीला करते हैं या बच्चे के अत्यधिक कपड़े निकालते हैं?		
<b>बी</b>	<b>घर पर बच्चे को सामान्य जुखाम और क्रॉव कम कर करने के लिए प्रथाएँ</b>		
1	क्या आप हल्दी के साथ दूध का मिश्रण देते हैं?		
2	क्या आप सामान्य जुखाम को कम करने के लिए नाक और छाती पर विक्स्वापार्ब लागू करते हैं?		
3	क्या आप भाप देते हैं?		
4	क्या आप छाती और माथे पर हल्दी पेस्ट पर आवेदन करते हैं?		
5	क्या आप खाने के लिए तुलीसी या तुलीसी का रस देते हैं?		
6	क्या आप ठंड को कम करने के लिए लहसुन के माला के चारों ओर गले लगाते हैं?		
7	क्या आप छाती और गर्दन क्षेत्र पर लहसुन के तेल पर आवेदन करते हैं?		
8	क्या आप गुड़ के साथ शहद देते हैं?		
9	क्या आप खांसी को कम करने के लिए जस्तम को दे देते हैं?		
10	क्या आप ठंड और खांसी को कम करने के लिए नींबू, दालचीनी पाउडर का मिश्रण दे रहे हैं?		
11	क्या आप चवनप्रशा देते हैं?		
12.	क्या आप ठंडा करने के लिए उबले अंडे देते हैं?		

सी	सांस लेने की का इलाज करने के लिए प्रथाएँ		
1	क्या आप नारियल तथा कपूर के तेल का मिश्रण को छाती पर मालिश करते हैं?		
2	क्या आप छाती पर नीलगिरी के तेल पर मालिश करते हैं?		
3	क्या आप हॉट ऑयल की मालिश मालिश करते हैं?		
4	क्या आप सरसों के तेल को मालिश करते हैं?		
5	क्या आप छाती और पीठ पर बिशप मातम द्वारा गर्म किण्वन प्रदान करते हैं?		
6	क्या आप बच्चे को खाने के लिए (आलसी बीज) देते हैं?		
7	क्या आप अपने बच्चे को अतिरिक्त कपड़ों के साथ गर्म रखते हैं?		
8	क्या आप सोने के दौरान बच्चे के सिर ऊपर उठाते हैं?		
9	क्या आप चिकित्सक द्वारा दवाइयाँ देते हैं?		

# INFORMATION BOOKLET



# PROTECT YOUR CHILD FROM PNEUMONIA

**INTRODUCTION**

Pneumonia is the single largest infectious cause of death in children worldwide., Accounting for 19% of all deaths of children under five years old.

Pneumonia affects children and families everywhere, but is most prevalent in South Asia and sub-Saharan Africa. Children can be protected from pneumonia, it can be prevented with simple interventions, and treated with low-cost, low-tech medication and care.

**What is acute respiratory infection?**



Acute respiratory infection is an infection that may interfere with normal breathing. This infection is particularly dangerous for children, older adults, and people with immune system disorders.

**What causes acute respiratory infection?**

Low immune

Pharyngitis

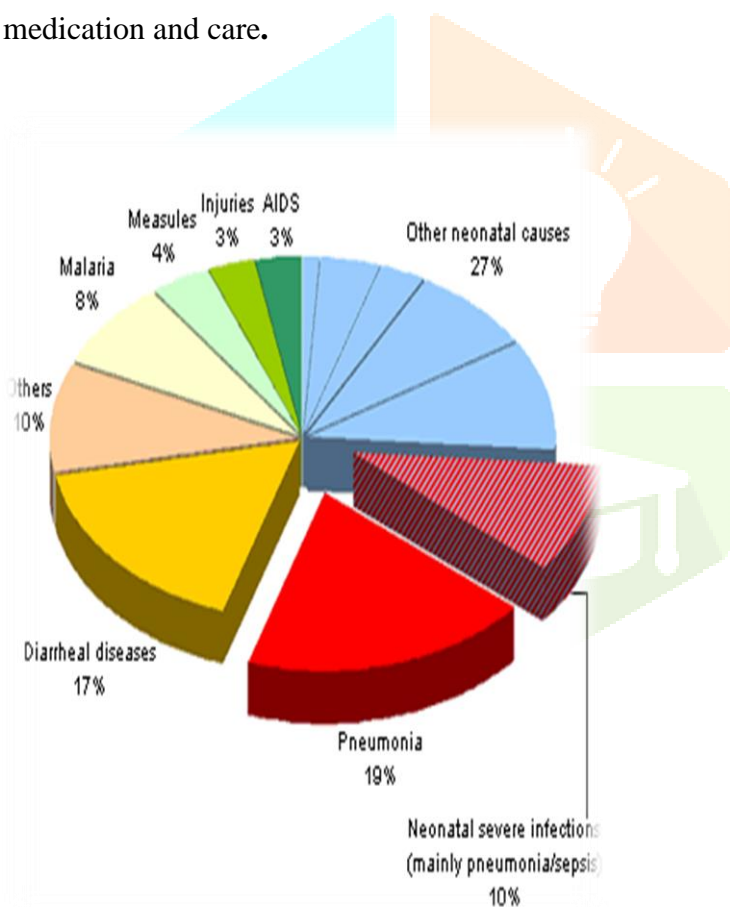
Ear infection

Common cold

Bronchitis

Pneumonia

Bronchiolitis



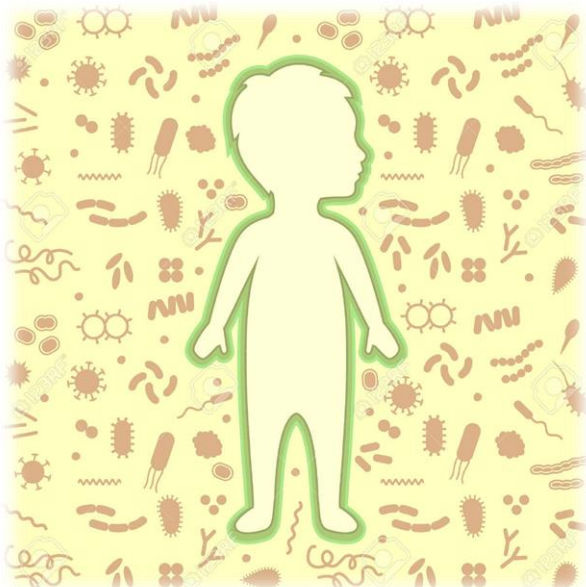


**HOW DOES PNEUMONIA SPREAD**

Bronchopneumonia are caused by bacteria. Outside the body, the bacteria are contagious and can spread between people in close proximity through sneezes and coughs. A person becomes infected by breathing in the bacteria.

**MEANING OF PNEUMONIA**

Pneumonia is an infection of the lungs that can be caused by nearly any class of organism known to cause human infections, including bacteria, viruses, fungi, and parasites. It results in an inflammatory response within the small air spaces of the lung (alveoli).

**RISK FACTORS**

- 1.Children whose immune systems are compromised .
- 2.Malnutrition or undernourishment.
- 3.Living in crowded homes



- 4.Indoor air pollution caused by cooking and heating with biomass fuels (such as wood or dung)



### 5. Parental smoking.



- **Breathing problems.**
- **Dry cough.**
- **Nasal congestion**

### SYMPTOMS OF PNEUMONIA.

- **Drowsiness.**
- **Sore throat**
- **Cough**



- **Sleepy or irritable than usual.**
- **Low-grade fever.**
- **Headache.**
- **Tiredness.**

- **Tiredness or lack of energy**
- **Sweating or chills**
- **Flushed skin**
- **A bluish tint to the lips or nail beds**
- **Wheezing**
- **Difficulty breathing**
- **Loss of appetite.**

➤ Vomiting



**TREATMENT FOR PNEUMONIA IN CHILDREN**

**Antibiotics.**



- Looking pale
- Being lethargic

- Severe pneumonia may need to be admitted to hospital for treatment.



- Being irritable or restless
- Feeding poorly
- Crying more than usual.

- Pain relieving medications
- Paracetamol to reduce fever
- Rest.
- Oxygen therapy - to ensure the body gets the oxygen it needs
- Intravenous fluids - to correct dehydration or if the person is too unwell to eat or drink.
- Physiotherapy - to help clear the sputum from the lungs.
- Place a tall glass of water by your child's bed for her to drink during the night. Drinking plenty of water will keep your child's body hydrated, which loosens mucous



- Elevate your child's head with an extra pillow if your child is having trouble breathing without coughing.



they have a chronic health condition (such as heart or lung disease) or one that weakens the immune system (like asplenia, HIV infection, etc.).

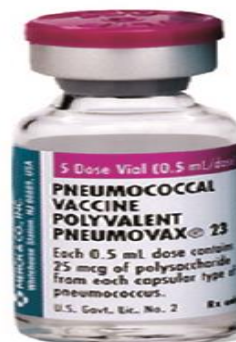
## VACCINES AGAINST PNEUMOCOCCAL DISEASE

The pneumococcal conjugate vaccine (PCV13) and the pneumococcal polysaccharide vaccine (PPSV23) protect against pneumococcal infections, which are caused by bacteria.

These vaccines not only prevent infections in children who are immunized, but also help stop the infections from spreading.

## IMMUNIZATION SCHEDULE

- PCV13 immunizations are given to all infants as a series of four injections:
  - The first at 2 months of age
  - Then at 4 months, 6 months, and 12–15 months
  - Some kids older than age 2 also might need a shot of PCV13; for example, if they have missed one or more shots or if



## PNEUMONIA PREVENTION TIPS

Keep your child away from children (and adults) who are sick (e.g. runny nose, cough and sneezing), it is best to keep them away from healthy children.





**Make sure your child is vaccinated. The Hib and Pneumococcal vaccines (PVC13) will help protect your child against bacterial pneumonias.**



### COMPLICATIONS

**It can be deadly or result in long-term problems, such as brain damage or hearing loss.**

**Make sure your child gets a flu shot.**

**Frequent hand washing with warm water and soap use hand sanitizer.**

- **Meningitis :-**
- **Bacteremia**
- **Empyema**



**Don't let your child share eating utensils, cups or straws with others. Same goes for facial tissue and handkerchiefs.**



### FOODS TO BE GIVEN TO CHILD DURING PNEUMONIA

**Breast milk or formula can be given if your child is younger than 12 months**

- Whole milk can be given if your child is older than 12 months
- Warm tea, lemonade, apple juice, or chicken broth may help relax the airway and loosen the mucus.



### FOODS TO BE AVOIDED DURING PNEUMONIA FOR BABY

- Avoid white flour, white sugar, and their products.
- Avoid fatty and spicy food.



- High calorie and high protein diet like meat, fish, eggs, beans, cheese, oil, butter, salad dressing and peanut butter

Fruits and vegetables like broccoli, tomatoes, carrots, peppers, oranges, apples and melon.



- All refined starch and sugar, pasteurized milk, all dairy products, all cooked foods.

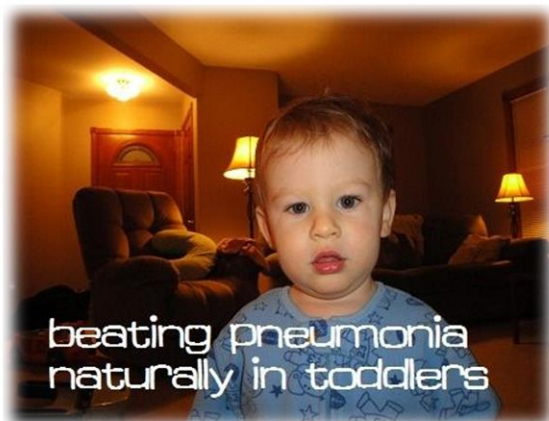


- Whole grains such as breakfast cereal, whole wheat bread, pasta and rice

### HOME PRACTICES TO PREVENT BRONCHOPNEUMONIA

- “High grade fever of 100.4 degrees.
- If there is fever has lasted for 2-3 days.

- If a fever lasts for more than 5 days, see a physician, even if your child looks well.”



## HOME REMEDIES FOR TO REDUCE

### FEVER

- Fluid intake and getting adequate rest.
- Tepid sponging.
- Keep the patient comfortable and not too bundled up in blankets.
- The room should also be well ventilated. If the fever continues to rise,
- A sponge bath with lukewarm water .
- Consult to doctor as soon as.

## HOME PRACTICES TO REDUCE CONGESTION ,COUGH,COLD

Some herbal cures include:

- Steam inhalations using hot water can help loosen phlegm and reduce a sore throat and congestion.



- Peppermint – Peppermint contains menthol, which works as a decongestant, expectorant and helps thin mucus and cures a cough.





**OTHER POPULAR HOME REMEDIES FOR****DONT'S DURING RESPIRATORY****A COMMON COLD , CHEST CONGESTION****INFECTION .****INCLUDE THE FOLLOWING:**

- **Gargle with hot water and salt to relieve a sore or hoarse throat.**
- **Drink ginger decoction throughout the day, as ginger acts as a natural decongestant and also helps with pain relief.**
- **Sip on a cup of warm milk mixed with a pinch of turmeric and honey to soothe a bad throat and other cold symptoms.**
- **Inhaling steam.**
- **Consult to doctor**



**Don't go to traditional healers.**

**Don't Believe on folk healers, holy water and ashes.**

**Don't Apply oil massages to provide comfort during difficulty in breathing.**



**Don't Give medicine without doctor consultation .**

**Don't Give herbal medicine without doctor's advices .**

**SUMMARY:-**

**Mother is immediate and had a close relation with the child. It is the responsibility of the mother to care her child so the health profession should give a through knowledge to the mother in the care of her child.**

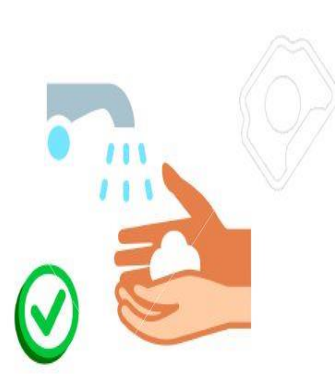




**WEAR FACE MASK  
IN THE HEAVILY  
CROWDED AREAS**



**WHEN COUGHING OR  
SNEEZING, USE TISSUE TO  
COVER MOUTH AND NOSE**



**FREQUENTLY  
WASH HANDS  
WITH SOAP**



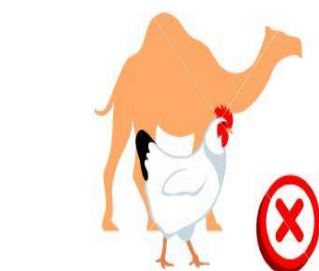
**AVOID DIRECT HAND  
CONTACT WITH EYES,  
NOSE AND MOUTH**



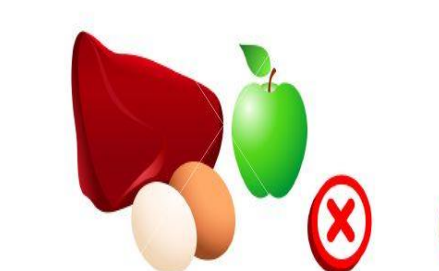
**AVOID  
SHAKING HANDS  
AND HUGGING**



**AVOID CLOSE CONTACT  
WITH SICK PEOPLE  
AND THEIR TOOLS**



**AVOID CONTACT WITH  
THE LIVE ANIMALS**

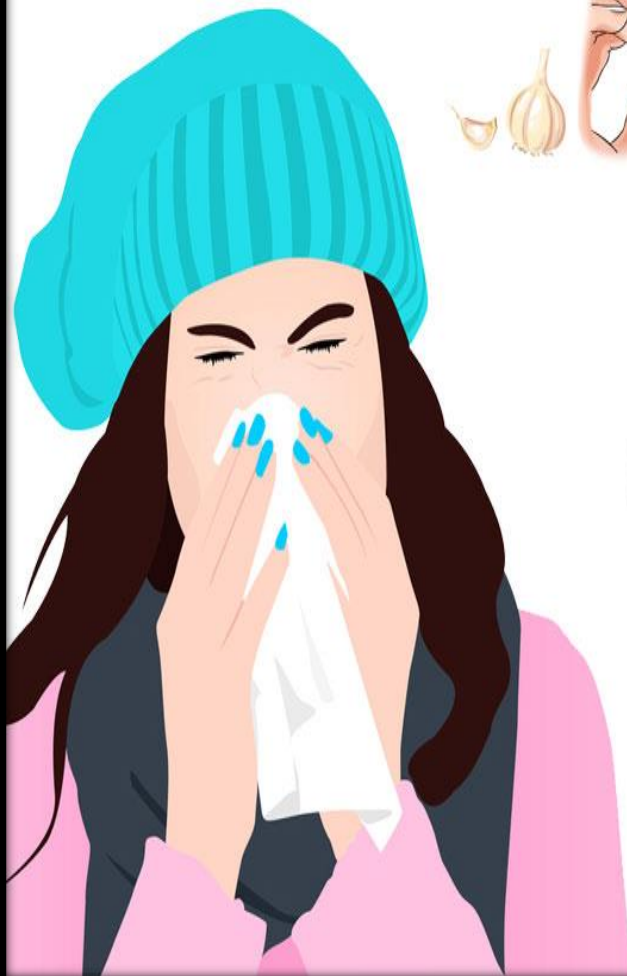
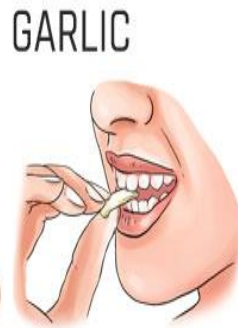


**AVOID UNDER COOKING  
MEATS, EGGS, RAW FRUITS**



**DO NOT SHARE EATING  
UTENSILS, CUPS, TOWELS**

# HOME REMEDIES FOR *Upper Respiratory Infections*



CHICKEN  
SOUP

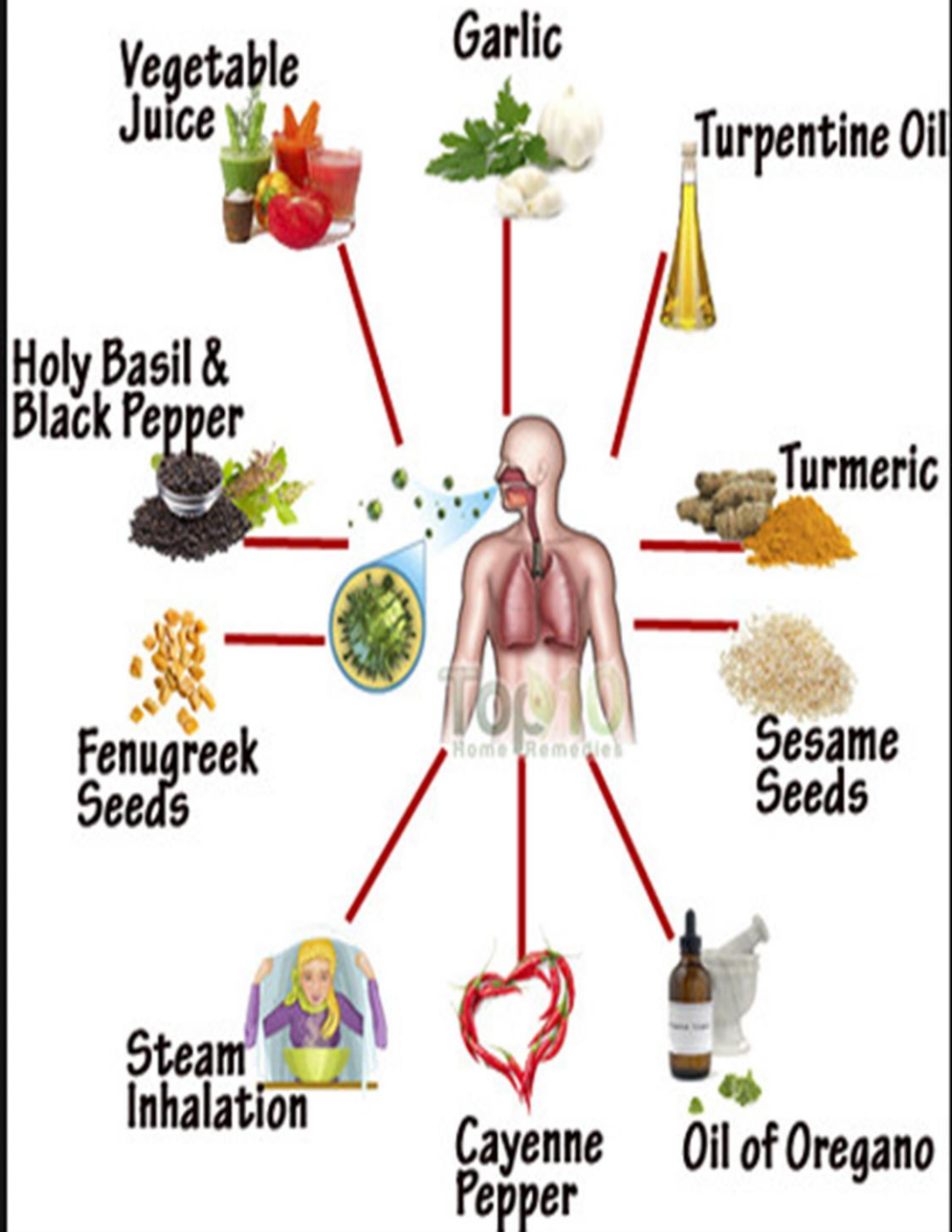


HUMIDIFIER

**Top10**  
Home Remedies

To explore more, visit  
[www.Top10HomeRemedies.com](http://www.Top10HomeRemedies.com)

# Top 10 Home Remedies for Pneumonia







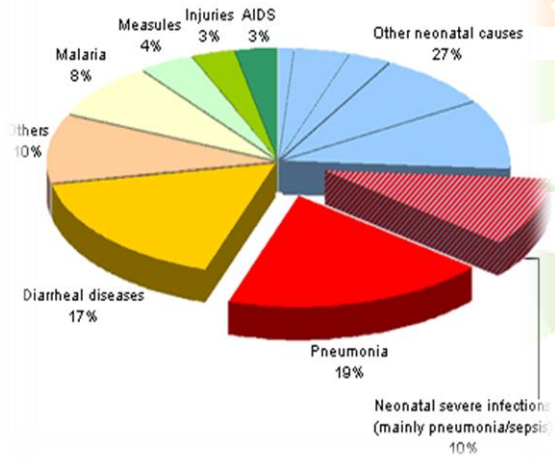
माहितीपुस्तिका



न्युमोनियापासून बचाव

## परिचय

जगभरातील मुलांमध्ये न्यूमोनिया मृत्यूचा सर्वात मोठे संक्रामक कारण आहे- पाच वर्षाखालील मुलांपासून 19% मृत्यू झाल्याचे निदान वर - न्यूमोनिया प्रत्येक ठिकाणी मुले आणि कुटुंबांवर प्रभाव पडते परंतु दक्षिण आशिया आणि उप-सहारा आफ्रिकामध्ये ते सर्वाधिक प्रचलित आहे- मुलांना न्यूमोनियापासून सुरक्षित केले जाऊ शकते आणि कमी किमतीच्या कमी तंत्रज्ञानाच्या औषधांसह आणि काळजी घेऊन उपचार केले जाऊ शकतात-



तीव्र श्वसन संक्रमण म्हणजे काय वर

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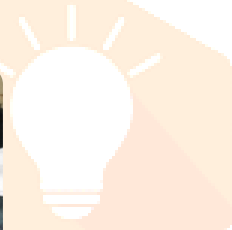


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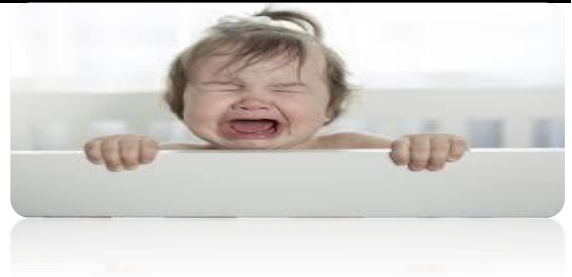
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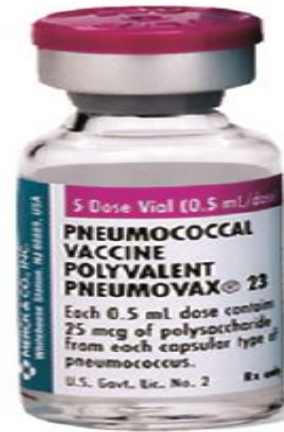
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# न्युमोनिया



# थांबवा





## सूचना पुस्तक

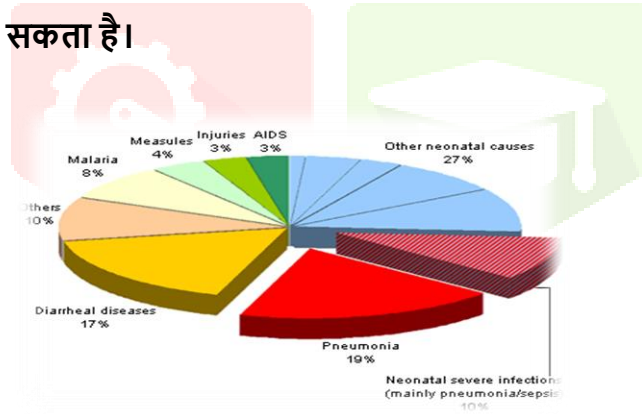


निमोनिया की रोकथाम

के लिए सूचना पुस्तक

## परिचय

- निमोनिया दुनिया भर में बच्चों के बीच मौत का सबसे बड़ा संक्रामक कारण है। पांच साल से कम उम्र के बच्चों में मृत्यु के 19% मृत्यु का निदान निमोनिया [gSa] vASj हर जगह बच्चों और परिवारों को प्रभावित करता है, लेकिन यह दक्षिण एशिया और उप-सहारा अफ्रीका में सबसे प्रचलित है बच्चों को निमोनिया से सुरक्षित किया जा सकता है, इसे सरल व्यवहार से रोका जा सकता है और कम लागत वाले, कम-तकनीक वाली दवाओं और देखभाल के साथ इसका इलाज किया जा सकता है।



## तीव्र श्वसन संक्रमण क्या है?

- तीव्र श्वसन संक्रमण एक संक्रमण है जो सामान्य श्वास के साथ हस्तक्षेप करता है।



- यह संक्रमण बड़े बच्चों, बुजुर्ग वयस्कों, के लिए खतरनाक हो सकता है।

श्वसन संक्रमण का कारण है।

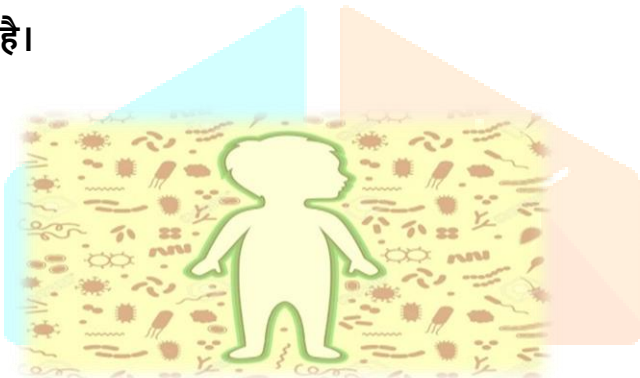
- कम संरक्षित
- अन्न-नलिका का रोग
- कान esa LAqtu
- सर्द
- ब्रोंकाइटिस
- निमोनिया
- ब्रॉइकिओलिटिस



## निमोनिया का अर्थ क्या है ?

## ब्रोंकोपोन्यूमोनिया का प्रसार कैसे होता है?

- निमोनिया एक फेफड़ों का संक्रमण है जो लगभग किसी भी प्रकार के जीवाणु के कारण होता है जिससे मानव संक्रमण हो सकता है, जिसमें बैक्टीरिया, वायरस, और परजीवी शामिल हैं। फेफड़ों में छोटे वायुमार्ग के भीतर एक भयानक प्रतिक्रिया ग्राह्य है।



## निमोनिया प्रतिबंध युक्तियाँ ?

- अपने बच्चे (और वयस्कों) को बीमार (जैसे, हवादार नाक, खाँसी और छींक) ग्राह्य रखें !
- आपके बच्चे के टीकाकरण सुनिश्चित
- हिब और न्यूमोकोकल वैक्सीन (पीवीसी 13) आपके बच्चे को जीवाणु न्यूमोनिया से बचाए रखने में मदद करेगा ।



- ब्रोंकोपोन्यूमोनिया बैक्टीरिया के कारण होता है शरीर के बाहर, जीवाणु संक्रामक होते हैं और छींक और खाँसी के माध्यम से लोगों के बीच फैल सकता है।



## जोखिम कारक

- बच्चों के इम्यून सिस्टम विकसित नहीं होते हैं।

ग्राह्य होते हैं।



- कुपोषण



- भीड़ वाले घरों में रहना

ग्राह्य





- बायोमास ईंधन (जैसे लकड़ी या डाग) के साथ कुकिंग ]इंडोअर एयर पोल्लिशन ]s gksrA gS



- धूम्रपान

पीएनयुमोनिया के लक्षण क्या है ?

- गले में खराश

- खाँसी



- सामान्य से अधिकांश नींद या चिड़चिड़ा।Au
- निम्न-श्रेणी का बुखार।
- सिरदर्द।

- थकान।



- साँस लेने की समस्याएं
- सूखी खाँसी
- नाक can



- थकान या ऊर्जा की कमी
- पसीना या ठंड लगना



- घरघराहट
- श्वास YAsus EAs कठिनrk
- भूख की कमी
- पsossले दिखना

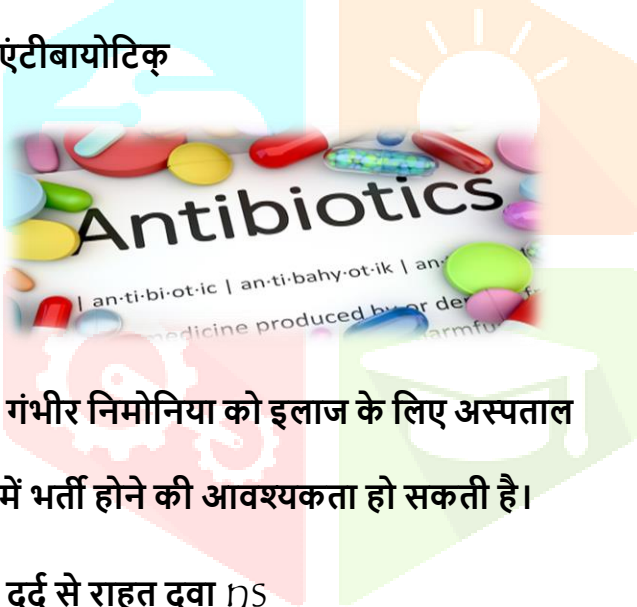
➤ सुस्त



- चिड़चिड़ा हो या बेचैन
- खराब भोजन करना
- सामान्य से अधिक रोना
- उल्टी

बच्चों में पीन्यूमोनिया के लिए उपचार

➤ एंटीबायोटिक



➤ गंभीर निमोनिया को इलाज के लिए अस्पताल में भर्ती होने की आवश्यकता हो सकती है।

➤ दर्द से राहत दवा ns

➤ बुखार को कम करने के लिए पेरिसिटामोल

ns

➤ आराम करें।

➤ ऑक्सीजन चिकित्सा यह सुनिश्चित करने के लिए कि शरीर को ऑक्सीजन की ज़रूरत होती है

➤ अंतःशिरा तरल पदार्थ - निर्जलीकरण को सही करने के लिए या यदि व्यक्ति खाने या पीने के लिए भी अस्वस्थ है।

➤ फिजियोथेरेपी - फेफड़ों से थूक को साफ करने में मदद के लिए रात के दौरान पीने के लिए अपने बच्चे के बिस्तर से एक गिलास पानी रखें। बहुत सारे पानी पीने से आपके बच्चे के शरीर को हाइड्रेटेड रखा जाएगा, जो श्लेष्म को कम करता है।

➤ न्यूमोकोकल संयुग्मक टीका (पीसीवी 13)

और न्यूमोकोकल पॉलीसेकेराइड वैक्सीन (पीपीएस वी 23) न्यूमोकोकल संक्रमणों से बचाते हैं, जो बैक्टीरिया के कारण होते हैं।

➤ ये टीके न केवल उन बच्चों में संक्रमण को रोकते हैं जो प्रतिरक्षित हैं, बल्कि संक्रमण से संक्रमण को रोकने में भी मदद करते हैं।

इमिनाइजेशन शेड्यूल



➤ पीसीवी 13 प्रतिरक्षकों को सभी शिशुओं को

चार इंजेक्शन की श्रृंखला के रूप में दिया जाता है:

- आयु के 2 महीने पहले
- फिर 4 महीने] 6 महीने और 12-15 महीनों में
- 2 वर्ष से अधिक आयु वाले कुछ बच्चों को भी पीसीवी 13 के एक शॉट की आवश्यकता हो सकती है; उदाहरण के लिए, यदि वे एक या एक से अधिक शॉट्स खो चुके हैं या यदि उनके पास एक पुरानी स्वास्थ्य स्थिति है (जैसे कि हृदय या फेफड़े की बीमारी) या जो कि प्रतिरक्षा प्रणाली को कम करता है (जैसे एचआईवी संक्रमण] आदि) ।

निमोनिया रोकथाम के लिये युक्तियाँ



- अपने बच्चे को और वयस्कों से दूर रखें] जो बीमार हैं (जैसे नाक] खांसी और छींकने) ।



➤

- सुनिश्चित करें कि आपके बच्चे को टीका लगाया गया है। हिब और प्यूमोकोकल टीके (पीवीसी 13) आपके बच्चे को जीवाणु न्यूमोनिया के खिलाफ सुरक्षित रखने में मदद करेंगे।
- सुनिश्चित करें कि आपके बच्चे को फ्लू का शॉट मिल जाए
- गर्म पानी और साबुन से ] हाथ मुंह धोना हाथ सेनेटिवेटर के साथ लगातार हाथ धोना।
- अपने बच्चे को खाने वाले बर्तन] रूमालों] कप या अन्य लोगों के साथ ]ahmने 00को मत देना।
- जटिलता
- मस्तिष्क क्षति हानि।
- मेनिनजाइटिस-



- खाद्य पदार्थों को न्यूमोनिया के दौरान बच्चे को दिया जाना चाहिए
- यदि आपका बच्चा 12 महीने से कम उम्र में है तो स्तन का दूध दिया सकता है



- यदि आपका बच्चा 12 महीने से अधिक है तो पूरे दूध दिया जा सकता है
- नींबू पानी सेब का रस या चिकन शोरबा बलगम को ढीला करने में मदद कर सकता है।
- उच्च कैलोरी और मांस मछली अंडे पनीर] तेल ]मक्खन सलाद ड्रेसिंग और मूंगफली का मक्खन जैसे उच्च प्रोटीन आहार है ।
- फल और सब्जियां जैसे ब्रोकली टमाटर] गाजर ] नारंगी ]सेब और तरबूज दौ ।
- -



- नाश्ता और अनाज] शिशु के लिए निमोनिया के दौरान से बचा जा सकता है ।



- सफेद आटा] सफेद चीनी] और उनके उत्पादों से बचें।
- फैटी और मसालेदार भोजन से बचें



- सभी परिष्कृत स्टार्च और चीनी पास्चराइज्ड दूध ना दौ और डेयरी उत्पाद सभी पके हुए खाद्य पदार्थ ब्रॉन्कोपोन्यूमोनिया को रोकने के लिए दौ.
- बच्चा जो 8 सप्ताह से कम उम्र का है और जिसका बुखार 100-4 डिग्री या उससे अधिक है उसे तुरंत चिकित्सक द्वारा देखा जाना चाहिए।



- यदि बुखार 5 दिनों से अधिक समय तक रहता है तो एक चिकित्सक को देखिए भले ही आपका बच्चा अच्छी तरह दिखता है।

### बुखार के लिए उपाय

- बुखार के प्रभाव से निपटने का सबसे आसान तरीका द्रव सेवन और पर्याप्त आराम है ।
- स्पंजिंग
- रोगी को आराम से रखें ।
- गुनगुने पानी के साथ स्पंज कर सकते हैं। ।



➤ जल्द से जल्द डॉक्टर से परामर्श करें ।

➤ इन्हलिंग स्टीम।

कुछ हर्बल उपचार हैं

➤ नीलगिरी भाप में गर्म पानी में नीलगिरी के कुछ बूंदों का इस्तेमाल करने वाले इनहेलेशन। कफ को ढीला करने और गले में खराश को कम करने में मदद कर सकते हैं।

➤ पेपरमिंट में मेन्थॉल होता है जो डेगेंस्टेन्ट कफ्लैक्टर के रूप में काम करता है और पतले बलगम में मदद करता है और खाँसी का इलाज करता है ।



➤ पेपरमिंट ऑयल का उपयोग किया जाना चाहिए।

एक सामान्य बुखार के लिए अन्य लोकप्रिय घर उपाय, में निम्नलिखित शामिल हैं ।

➤ नमक का पानी का न<sup>3</sup> aoJ करें।

➤ हल्दी और शहद की एक चुटकी के साथ मिलाकर एक प्याला दूध पर पीएं और खराब गले और अन्य ठंडे लक्षणों को शांत करने के लिए।



➤ डॉक्टर से परामर्श करें



श्वसन संक्रमण के दौरान न करें



- पारंपरिक चिकित्सकों के पास मत जाओ।
- लोक चिकित्सकों, पवित्र जल और राख पर विश्वास मत करो
- श्वास में कठिनाई के दौरान आराम प्रदान करने के लिए तेल मालिश लागू न करें।
- चिकित्सक परामर्श के बिना दवा न दें
- डॉक्टर की सलाह के बिना हर्बल दवा न दें।

सारांश-

बच्चे के साथ माँ का करीबी रिश्ता है माता की जिम्मेदारी है कि वह अपने बच्चे की देखभाल करे ताकि बच्चा स्वस्थ jgs -



# निमोनिया



# रुके



**ABSTRACT****INTRODUCTION**

Children are vital to the nation's present and its future. Parents, grandparents, aunts, and uncles are usually committed to providing every advantage possible to the children in their families, and to ensuring that they are healthy and have the opportunities that they need to fulfill their potential. Yet communities vary considerably in their commitment to the collective health of children and in the resources that they make available to meet children's needs. This is reflected in the ways in which communities address their collective commitment to children, specifically to their health.

Park K, Textbook of Preventive and social medicine(2015), says that, the child is the future of citizen of the nation . World's greatest resource for a future lies in the children of today. Today's children are tomorrow's citizen and leaders. Investment in the children develops is thus an investment in the country's future and improving the nation's quality of life. Stated that Pneumonia is the single largest infectious cause of death in children worldwide. Pneumonia killed 920 136 children under the age of 5 in 2015, accounting for 16% of all deaths of children under five years old. Pneumonia affects children and families everywhere, but is most prevalent in South Asia and sub-Saharan Africa. Children can be protected from pneumonia, it can be prevented with simple interventions, and treated with low-cost, low-tech medication and care, For many countries the post Millennium Development Goal agenda has explicitly included ending preventable diarrhoea and pneumonia deaths as a priority action.

**PROBLEM STATEMENT**

“A Descriptive study to assess the Knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children in selected hospitals of metropolitan city –In view to develop Information Booklet.”

**OBJECTIVES OF THE STUDY**

1. To assess the knowledge and practices regarding prevention of bronchopneumonia among mothers of under five children.
2. To identify the co relationship between the knowledge and practices with demographic variables
3. To develop and provide information booklet on prevention of bronchopneumonia.



## METHODOLOGY

In the present study, a conceptual framework based on Health Belief Model (modified from Becker MH and Miaman LA, Medicare), Quantative research approach and descriptive survey was used by investigator.

## SAMPLING

Non- probability purposive sampling method was applied to select the subjects admitted in pediatric wards and attending OPD's ,CWC with their children.in selected hospitals of Metropolitan city. In this study, the subjects were mothers of under five who are admitted with their child in pediatric wards ,attending pediatric OPD's ,and CWC. Subject size was of 60 mothers of under five. The tool adapted by investigator for data collection was semi structured questionnaire and self reported check list to assess practices practices regarding prevention of bronchopneumonia..

## FINDINGS OF THE STUDY

The data were analysed and interpreted by applying statistical methods. The result of the study was that the Pearson's correlation coefficient between the knowledge scores and the practice scores was 0.83. That means, as knowledge regarding prevention of bronchopneumonia increases the practice score also increases. Association between knowledge score with selected demographic variables like Occupation, Type of family Monthly income ,History of respiratory infection ,Type of house and Source prefer to cook were having Significant association with knowledge score and remaining variables are non significant .Association between practices score with selected demographic variables like, Type of family ,Monthly income ,History of respiratory infection and Type of house were having Significant association with Practices score and remaining variables were non significant . The comparison of group wise means of knowledge with demographic variable like Occupation, Type of family, Monthly Income, History of respiratory infection, Type of house, Source prefer to cook were significant and remaining demographic variables are non significant.The Comparison of group wise means of practices for the variables such as Type of family ,History of respiratory Disease, Source prefer to cook food are significant and remaining variables means score of practices are not significant. The Alternate hypothesis ( $H_1$  and  $H_2$ ) is accepted, concludes that there was significant association between average score and significant difference in the group wise average score of Knowledge and practices with respect to demographic variable

## CONCLUSION

From above findings the investigator concluded that there was significant correlation between knowledge and practices score and there was significant association of knowledge and practices with selected demographic variables like, Type of family Monthly income ,History of respiratory infection ,Type of house and source prefer to cook regarding prevention of bronchopneumonia . Hence from the Information booklet distributed to the subjects will help to increase the knowledge and good practices for the same.

