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A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

Dissertation submitted to

Era University

In partial fulfillment of the requirements

For the award of the degree of

MASTER'S DEGREE IN NURSING

BY

Mr. Prabhat Kumar

Under The Guidance of

Miss Madhu Kumari

DEPARTMENT OF CHILD HEALTH NURSING

ERA COLLEGE OF NURSING

ERA UNIVERSITY

LUCKNOW U.P. 226003

2017-19

"A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PREVENTION OF UPPER RESPIRATORY TRACT INFECTION (URTI) AMONG MOTHERS OF UNDER FIVE CHILDREN IN PEDIATRIC WARD AT ERA'S LUCKNOW MEDICAL COLLEGE & HOSPITAL, LUCKNOW, U.P."

A

DISSERTATION SUBMITTED

In the partial fulfilment of the requirement for the award of degree of

Masters of Science

in

Nursing

By

Mr. Prabhat Kumar

Guide:

Ms. Madhu Kumari Gupta

Assistant Professor & Head

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DECLARATION BY THE CANDIDATE

I hereby declare that the dissertation/thesis titled **"A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."** is bonafied and genuine research worked carried out by **Mr. Prabhat Kumar** under the guidance of **Ms. Madhu Kumari Gupta**, Assistant Professor & HOD of Child Health Nursing Department, Era College of Nursing, Era University, Lucknow, Uttar Pradesh.

Date: **Signature of the Candidate**

Place: Lucknow **(Prabhat Kumar)**

CERTIFICATE BY THE GUIDE

This is to certified that the dissertation/thesis titled **"A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."** is bonafied and genuine research done by **Mr. Prabhat Kumar** for partial fulfilment of the requirement for the degree of Master of Science in Nursing (Child Health Nursing).

Date:

Place: Lucknow

Signature of the Guide:

Ms. Madhu Kumari Gupta
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ENDORSEMENT BY PRINCIPAL/DEAN OF THE INSTITUTION

This is to certified that the dissertation/thesis titled **"A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."** is bonafied and genuine research done by **Mr. Prabhat Kumar** for partial fulfilment of the requirement for the degree of Master of Science in Nursing (Child Health Nursing).

Date:

Place: Lucknow

Seal and Signature of Principal

Prof. Lt Col Rina Bhowal (Retd.)
Principal
Era College of Nursing,
Lucknow, U.P.

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I hereby declare that the Era College of Nursing, Era University, Lucknow will have right to preserve, and disseminate this dissertation/thesis in print or electronic format for academic/research purpose.

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Place: Lucknow **(Mr. Prabhat Kumar)**

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Date: **(Prabhat Kumar)**

Place: Lucknow

ABSTRACT

Research Statement

"A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P."

Introduction

Respiratory tract infection is one of the problematic respiratory disease in India. Children below 5 years are more vulnerable to this disease. Mothers are primary care providers and they should have knowledge to manage respiratory tract infection. This study intended to assess the knowledge of mothers regarding prevention of upper respiratory tract infection in under five children with implementation of structured teaching program.

Objective

- To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.
- To evaluate the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.
- To determine the association between the levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

Method

A study was conducted by using quantitative research approach at Era's Lucknow Medical College, Lucknow, U.P. A pre-experimental research design was adopted to conduct the study. The conceptual framework utilized in this study was *KING'S IMOGEN THEORY*. Total 60 mothers of under five children were selected by purposive sampling technique for collection

of data. Method of data collection was Structured Interview Schedule. Before conducting the study written consent was obtained from the mothers of under five children. The research tool consists of two sections, 1st section is for demographic data and 2nd section is structured questionnaire was used to assess the knowledge of mothers of under five children regarding prevention of upper respiratory tract infection.

Result

In Pretest Aspect wise mean knowledge of mothers regarding Anatomy & Physiology of respiratory tract was 66.5%. Regarding cause of Upper Respiratory Tract Infection was 48.5%. Regarding clinical features of Upper Respiratory Tract Infection was 61.17%. Regarding home care management of Upper Respiratory Tract Infection was 55%. Regarding Preventive Measures of Upper Respiratory Tract Infection was 70.6%. Regarding Vaccination was 9.6%.

The overall pretest mean score on knowledge regarding Prevention of Upper Respiratory Tract Infection among mothers of under five children was 50.77% shows inadequate knowledge.

In Post-test Aspect wise mean knowledge of mothers regarding Anatomy & Physiology of respiratory tract was 94%. Regarding cause of Upper Respiratory Tract Infection was 80.83%. Regarding clinical features of Upper Respiratory Tract Infection was 82.5%. Regarding home care management of Upper Respiratory Tract Infection was 87.5%. Regarding Preventive Measures of Upper Respiratory Tract Infection was 93.4%. Regarding Vaccination was 41.6%.

The overall post-test mean score on knowledge regarding Prevention of Upper Respiratory Tract Infection among mothers of under five children was 78.93% shows adequate knowledge.

The overall knowledge level of mothers regarding prevention of upper respiratory tract infection, in pretest there were 40 number (66.67%) of the mothers with inadequate knowledge, 19 number (31.66%) of the mothers with the moderate level of knowledge, 1 numbers (1.67%) where in adequate knowledge where as in post-test 22 number (36.67%) of mothers had moderate knowledge, 38 numbers (63.33%) had adequate knowledge regarding prevention of upper respiratory tract infection.

The study reveals that the paired‘t’ value shows that there is significant difference between pretest and post-test knowledge score (‘t’ = 24.625) at 0.05 level of significance. It indicates the effectiveness of structured teaching program in enhance the knowledge regarding prevention of upper respiratory tract infection among mothers of under five children.

There was significant association found between the levels of pre-test knowledge score with their selected socio-demographic variables such as educational status and occupational status among mothers of under five children at 0.05 level of significance. But age, place of resident, family income, type of family, No. of living children, immunization status, family history of allergic respiratory disease was not significant.

Interpretation & Conclusion

The post-test knowledge mean percentage was found higher (knowledge mean percentage was 78.93% with SD of 2.92 when compared with pre-test knowledge mean percentage which was 50.77% with SD of 3.14). Knowledge mean percentage enhancement was 28.17% with SD of 2.66. The statistical paired‘t’ test implies that the difference in the pre-test and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired‘t’ test value of 24.625. There exists a statistical significance in the enhancement of level of knowledge score indicating the positive impact of structured teaching program. Hence the stated research hypothesis **H_1 is accepted.**

The Structured Teaching Program was found to be effective with 28.17% in increasing the knowledge of mothers of under five children regarding Prevention of Upper Respiratory Tract Infection.

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List of Abbreviations

ARI	:	Acute Respiratory Infection
URTI	:	Upper Respiratory Tract Infection
LRTI	:	Lower Respiratory Tract Infection
NMR	:	Neonatal Mortality Rate
IMR	:	Infant Mortality Rate
STP	:	Structured Teaching Program
WHO	:	World Health Organization
UNICEF	:	United Nation International Children Emergency Fund
n	:	Total number of Sample
t	:	Karl Pearson's Coefficient of correlation
X^2	:	Chi-square
SD	:	Standard Deviation
%	:	Percentage
<	:	Less than
>	:	Greater than
∑	:	Summation
S	:	Significant
NS	:	Not Significant

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CHAPTER I

INTRODUCTION

"Children are the wealth of tomorrow – Take care of them if you wish to have a strong India, ever ready to meet various challenges"

Pandit Jawahar Lal Nehru

Back Ground of the Study

Children are our future. The development of children is basically affected by what happens to their health status during early years of life.[1] Investing in children health & development means investing in the future of a nation.[2]

Each year more than 10 million children die before they reach their fifth birthday. Seven in ten of these deaths are due to five preventable and treatable conditions: pneumonia, diarrhea, malaria, measles, and malnutrition, and often a combination of these each year more than 10 million children die. The estimated proportion of deaths in which under nutrition is an underlying cause are roughly similar for diarrhea 61%, malaria 57%, pneumonia 52%, and measles 45%. This problem causes a higher under five mortality rate (UMR) especially in South-East Asia.[3]

Acute respiratory tract infection (ARI) is considered as one of the major public health problems and it is recognized as the leading cause of mortality and morbidity in many developing countries. The greatest problem for developing countries is the mortality from ARI in children less than five year of age.[4]

ARI is mostly caused by both viruses and bacteria. Viral agents account for 90% of Upper respiratory tract infection (URIs), however most of these infections do not result in fatal and severe, and they are mild and self-limited illnesses. While Bacterial pulmonary infections are common in developing countries associated with a greater risk of death.[5]

Respiratory tract infections affect the nose, throat, and airways and may be caused by any of several different viruses. Most often, viral respiratory tract infections spread when children's hands come into contact with nasal secretions from an infected person. These secretions contain viruses. When the children touch their mouth, nose, or eyes, the viruses again enter and produce a new infection. Less often, infections spread when children breathe air containing droplets that were coughed or sneezed out by an infected person. For various reasons, nasal or respiratory secretions from children with viral respiratory tract infections in adults contain more viruses. This increased output of viruses, because of lesser attention to hygiene, makes children more likely to spread infection to others. The possibility of transmission is further enhanced when many children are gathered together, such as in child care centers and schools. Contrary to what people may think, other factors, such as becoming chilled, wet, or tired, do not cause colds or increase a child's susceptibility to infection.[6]

Our body needs a constant supply of oxygen to support metabolism, if any difficulty in breathing is experienced, it is considered as a threat to life itself. Whether death is a real possibility or not, children with respiratory disorders are often anxious and fearful that they may die. Infections of the respiratory tract are a substantial cause of mortality and morbidity in young children. Acute respiratory tract infection accounts for 30-50 percent of visits by children to health facilities everywhere. While upper respiratory infection are very frequent but seldom life threatening, lower respiratory infections are responsible for more severe illnesses such as influenza, pneumonia, bronchitis, that are the leading contributors of ARIs mortality.[7]

Respiratory tract infections (URTI) including nasopharyngitis, pharyngitis, tonsillitis and otitis media constitute 87.5% of the total episodes of respiratory infections. Recurrent throat problems in children are common and have an impact on the family. Time off school, or parental time off work was significantly associated with parental worry and disruption ·The cause of RTI are multifactorial (enlarged adenoid, environmental conditions, staying at the care centers, smoking parents, allergy). Directly, viral infection

causes damage to the ciliary cells and mucociliary clearance. Enlarged adenoids reduce ventilation to the nasopharynx, increase accumulation of the secretion and provide a good condition for bacteria. Allergy is confirmed in 35-38% of RTI children.[8]

Many acute respiratory infections are mild and cause few symptoms. Interventions delivered at home are usually sufficient to relieve minor discomfort and eases respiratory efforts. Warm or cool moist is a common therapeutic measure for symptomatic relief of respiratory discomfort and also management of respiratory secretions in toddler. For older infants and children who can tolerate decongestants, vasoconstructive nasal drops may be administered 15 to 20 minutes before feeding and at bed time.[9]

Prevention of spread of infection is very important in toddler; 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; more over 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.[10]

In most cases, children can be permitted to determine their own need for food. Toddler 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.[11]

Some viral and bacterial diseases also cause upper respiratory tract infections in toddler. Measles is a highly infectious disease of children caused by specific viruses called mixo viruses. Measles killed between 7-8 million children in a year. Diphtheria and whooping cough are the other disease causes upper respiratory tract infections in children. The reported cases of diphtheria in Thailand were 31 cases and Laos was 300 cases in the age between 1-3 years. At the same time whooping cough also causes mortality among young children, in 2002 it killed around 2.95 lakh persons. [12]

Need of the Study

Infections of the respiratory tract are described according to the anatomic area of involvement. Upper respiratory tract infections are common problems in toddler as well as in children and is the major cause of lower respiratory tract infections.[13]

Every year respiratory problems in young children is responsible for an estimated 41 million deaths world-wide. The incidence of respiratory problems is similar in developed and developing countries. About 90% of the acute respiratory tract infection, deaths are due to pneumonia. This is usually bacterial in origin. It is an important cause of morbidity in children.[14]

Respiratory diseases are very often found in children especially the respiratory infections. It is one of the leading causes of morbidity and mortality in young children. Respiratory problems are responsible for a large proportion of pediatric admissions and outpatient attendance. The respiratory problems which are commonly seen in children are pneumonia, bronchitis, bronchial asthma and tonsillitis.[15]

In India, the states and districts with high infant and child mortality rates, acute respiratory tract infection is one of the major causes of the death and it is also one of the major reasons for which young children are brought to the hospital. Hospital records shows that up to 13 % of young child mortality in pediatric ward is due to upper respiratory tract infections. According to WHO an estimate respiratory infections caused about 987000 deaths, in that 20000 due to acute upper respiratory tract infection. The burden of the disease in terms of disability adjusted life year (DALYs) lost was 25.5 million of these 2.74 lakh due to acute respiratory tract infection.[16]

In India some bacterial and viral diseases also causes the upper respiratory tract infection. Measles causes child morbidity and significant child mortality. Diphtheria and whooping cough also causes child mortality and morbidity. Incidents of the diphtheria in the country were about 12952 whereas the cases of whooping cough are 26.7 thousands.[12]

Incidents in India shows most of the upper respiratory tract infection in toddler, like the common cold are caused by virus. A virus is an organism that is small and it incorporate itself in to the body's own cells. Unlike bacteria which are larger and attached to the body's own cells, but do not incorporate themselves with in the cell. Viruses do not respond to the antibiotics.[17]

Simiyu DE, Wafula EM, Nduati RW (2003), conducted **a cross sectional survey** to carry out knowledge attitude and practice regarding ARI in children in Baringo District, Kenya, in June 2003 there were 308 mothers of under- five attended a mixed structured and unstructured questionnaire, the report face mothers had good knowledge of mild form of ARI and pneumonia. But not the severe form, there attitude to ARI and pneumonia was appropriate, but subsequent practice were not. Low utilization of health services for moderate ARI and pneumonia may result in continued high mortality because of delayed identification of seriously ill children.[18]

Research Statement

A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.

Aim of the study

To assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection among mothers of under five children in order to enhance their level of knowledge on Prevention of Upper Respiratory Tract Infection.

Objectives

- To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among the Mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.
- To evaluate the effectiveness of Structured Teaching Program regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.
- To determine the association between levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

Operational definition

- **Assess:**

  Oxford dictionary, assess is to determine, evaluate, estimate or judge the value of anything.

  In this study it refers to evaluate the effectiveness of structure teaching program on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children.

- **Effectiveness:**

  Erlandson 2002, Effectiveness is the ability to produce a specific result or to exert a specific measurable influence.

  In this study it refers to significant improvement in knowledge regarding prevention of upper respiratory tract infection among mothers of under five children.

- **Structured teaching program:** It refers to a structured teaching and learning activity.

  Oxford dictionary 1960, the writing or preparation of structured programs.

In this study it refers to systematically teaching strategies for a group of mothers of under five children to enhance the knowledge regarding prevention of upper respiratory tract infection.

- **Knowledge:** It refers to verbal statements made by the mothers of under five children regarding respiratory tract infection.

  Oxford Dictionary, Facts, information and skills acquired through experience or education: the theoretical or practical understanding of a subject.

  In this study knowledge refers to responses obtain from mothers of under -five children regarding prevention of upper respiratory tract infection.

- **Upper Respiratory Tract Infection**: Upper Respiratory Tract Infection (URTI) is defined as acute infective inflammatory changes in any part of upper respiratory tract.

  In this study upper respiratory tract infection means child has sign & symptoms of common cold & cough or child has history of sore throat or laboured respiration

- **Mothers of under five children:** It refers to the mothers with children of age below 5 years.

  In this study I took mothers with children of 1 to 5 years age group who were admitted in paediatric medicine ward or attended the paediatric OPD.

- **Demographic variable:** In this study it refers to age, educational qualification, occupational status, and place of resident, family income, type of family, number of living children, immunization status and family history of respiratory disease.

Variables under the study

- **Independent Variable:** In this study independent variable is the structured teaching program regarding prevention of upper respiratory tract infection.
- **Dependent Variable:** In this study the dependent variable is knowledge of mothers of under five children regarding prevention of upper respiratory tract infection.
- **Socio-Demographic Variables:** Mothers of under five children such as age, education status, occupational status, place of resident, family income, type of

family, number of living children, immunization status and family history of respiratory disease.

Hypothesis

- **H_0:** There was no significant association between pre and post interventional level of knowledge regarding prevention of Upper Respiratory Tract Infection among mothers of under five children.
- **H_1:** There was significant association between pre and post interventional level of knowledge regarding prevention of Upper Respiratory Tract Infection among mothers of under five children.
- **H_2:** There was significant association between levels of knowledge regarding prevention of Upper Respiratory Tract Infection among mothers of under five children with selected demographic variables.

Assumption

- Structured teaching program helps to enhance the knowledge of mothers regarding prevention of upper respiratory tract infection.
- Mothers of under five children will be willing to express their knowledge regarding prevention of upper respiratory tract infection.

Delimitation

- The study was delimited on mothers of under five children
- Mothers available at the period of study.

Ethical consideration

The main study will be conducted after the approval of research committee and the permission will be obtained from the following:

1. The Principal of Era college of Nursing, Lucknow

2. The Ethical committee of Era University
3. The Research committee of Era University
4. The Medical superintendent of Era's Lucknow Medical College & Hospital
5. The Nursing superintendent of Era's Lucknow Medical College & Hospital
6. Inform consent will be taken from the patients who are willing to participate in this study.

Conceptual Framework

The present study researcher developed the conceptual framework, based on the King's goal attainment model. According to Imogene King, Nursing is a process of action, reaction and intervention, whereby nurses and clients share information about their perceptions in relation to nursing care. Through perception and communication, they identify the problem based on which they set goals and take necessary actions. The concepts of personal, inter-personal and social system including perception, judgment, action, reaction, transaction and feedback are included in the theory.

Perception

The researcher perceives the mother's need to have knowledge regarding prevention of upper respiratory tract infection.

Judgment

The researcher judge that educating the mothers on prevention of upper respiratory tract infection will enhance their knowledge.

Action

Researcher develops a structured teaching program on prevention of upper respiratory tract infection. The mothers prepare themselves to seek information regarding prevention of upper respiratory tract infection after obtaining consent from the mothers and prepare the questionnaire for pre-test and post-test.

Reaction

Reaction refers to the development of action and acting on perceived choice for goal attainment. The action of both researcher and the mothers will lead to reaction. The mother's participation the pre-test followed by structured teaching program provided by the investigator. The tool and lesson plan for teaching validated from experts.

Interaction

Interaction defines to a process of perception and communication between person and communication between person and environment and between people to person. It refers to verbal and non-verbal behavior between an individual and the environment or among two or more individuals. It involves goal directed communication.

Action leads to interaction where the nurse researcher executes his structured teaching program on knowledge regarding prevention of upper respiratory tract infection. The mother will be eager to acquire knowledge by structured teaching program.

Transaction

Imogene defines as observable behaviors of human beings interacting with the environment. When transactions occur between researcher and mothers, goals attained. Transaction is the mutually identified goals of two or more individuals and the means to achieve them. They reach an agreement about how to attain these goals and then set about to realize them. Transaction identifies the target to assess the promotion of knowledge and skills by administering post-test to check the change in the level of knowledge after structured teaching program.

Feedback

The outcome may be either inadequate, moderate or adequate. Feedback is given and the system continues. The outcome of this study may be either improvement in knowledge among mothers. Feedback is not include.

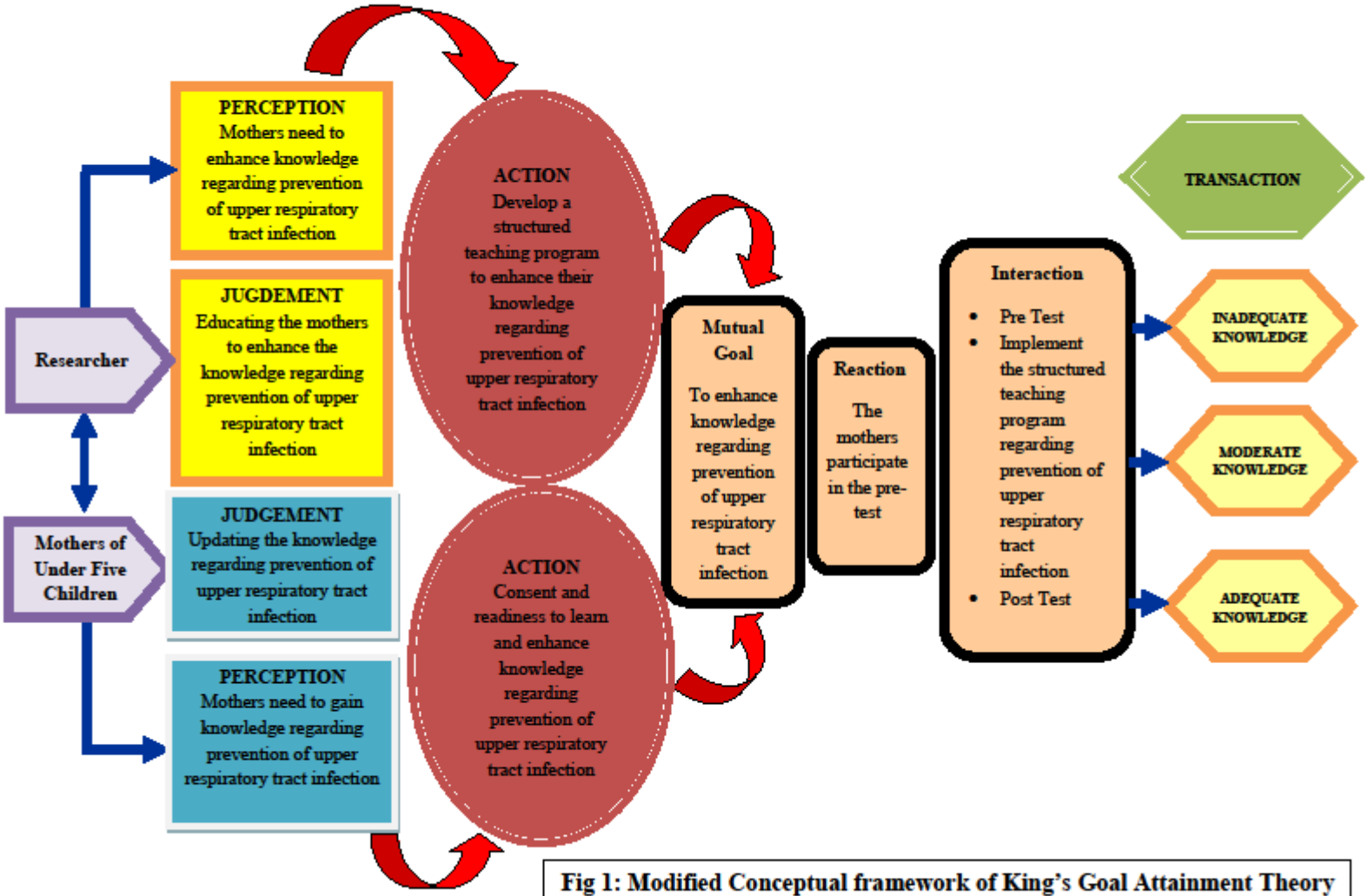


Fig 1: Modified Conceptual framework of King's Goal Attainment Theory

Summary

This chapter deals with the introduction of the study, need of the study, statement of the problem, objectives of the study, operational definition of the terms, hypothesis, assumption, delimitation, ethical consideration and conceptual framework.

CHAPTER II

REVIEW OF LITERATURE

Review of literature is one of the most important steps in the research process. It is an account of what is already known about a particular phenomenon. The main purpose of literature review is to convey to the readers about the work already done and the knowledge and ideas that have been already established on a particular topic of research.[19]

A literature review is an account of the previous efforts and achievements of scholars and researchers on a phenomenon.[19]

Definition

Review of literature is defined as broad, comprehensive, in depth, systematic and critical review of scholarly publication, unpublished printed or audio visual material and personal communiations.[19]

Suresh K. Sharma 2005

It is a critical summary of research on a topic interest generally prepared to put a research problem in context or to identify gaps and weakness in prior studies so as to justify a new investigation.

Polit & Hungler 1995

The overall purpose of the review of literature is to develop a strong knowledge based to carry out research project. It reveals appropriate research question for the discipline, uncover conceptual and data based knowledge in relation to a particular problem and uncovers new knowledge that can lead to development, validation or refinement of theories (Wood & Harber)

An extensive review of research & non research literature will be done by the investigator to determine what is known and what is not known about the research problem. It will help the researcher to gain a deeper insight into the problem, to decide

on the methodology, plan for analysis and to develop structured teaching program regarding prevention of acute respiratory tract infection.

A literature review helps to motivate for new research ideas and to help to the basic idea of the study. It provides information regarding the significance of the fresh study to be carried-out and provides the readers with a background for better learning and understanding the existing knowledge on the area of study.[20] The beginning of literature of review is through selection of a research problem, that continues through several stages of research process and finally with report writing.[21]

The review of literature of the recent study has been organized and presented under the following sections:

1. Literature related to Respiratory Tract Infection.
2. Literature related to knowledge of mothers regarding Respiratory Tract Infection.
3. Literature related to effectiveness of Structured Teaching Program

Literature related to Respiratory Tract Infection

Kumar GS, Majumdar A, Kumar V, Naik BN, Selaraj K, Balajee K.(2015), conducted **a community based cross sectional study** to estimate the prevalence of ARI and selected associated factors among 509 parents of under-five children at Urban Health Centre and Rural Health Centre of Puducherry, India. There was prevalence of 59.1% of overall ARI, in urban areas with 63.7% and 53.7% in rural areas. In age group 0-12 months the prevalence of ARI was highest (63.2%), which was 59.5% among 25-30 months and comparatively lower in 13-24 months age group (52.6%). The study concluded that, the prevalence of ARI was high, particularly in urban areas. ARI is an important public health problem among under-five children. Reduction of ARI among under-five children in the community may be possible with improvement of living conditions in houses.[22]

Haldar A, Mundle M, Ray A, Haldar S (2010), conducted a study to identify the risk factors for ALRTI among under- fives in urban eastern India. The sample consisted of 200 under-fives children diagnosed as having ALRTI in pediatric OPD and indoor ward. The results of the study revealed that, 45% (90) were underweight and

71.5% (143) had >5 episodes of ALRTI. Percentage of having >5 ALRTI episodes was inversely related to Socioeconomic status. >5 episodes of ALRTI was observed among 93.0% of children whose parents were up to primary education level as compared less episodes among 55.3% whose parents had higher literacy levels ($Z=7.0$, $P<0.05$). Odds ratio for absence of exclusive breastfeeding was 14.1, for absence of measles vaccination was 6.1 and for attached kitchen was 6.9 respectively, which were very high as per study.[23]

Deb SK (2010), conducted **an epidemiological study** to identify the incidence, causes, risk factors, morbidity and mortality associated with ARI and impact of simple case management in children under-five years of age at urban and rural areas of West Tripura district. The study revealed that, annual episode every child was more in urban area than in rural area. The overall incidence of ARI was 20%, while in the urban area the monthly incidence was 23% and in the rural area it was 17.65%. In urban area 16 per 1000 was the incidence rate of pneumonia and 5 per 1000 in the rural area. The highest incidence of pneumonia was in the infant group; with 7% in urban area and 3% in rural area ARI cases developed pneumonia. Malnourishment in rural area was 65% and in urban area was 54%. Most prevalent risk factor for children to develop respiratory infection is malnourishment. Among malnourished children the relative risk of developing pneumonia was 2.3. Majority (59%) of the children had been immunized with measles and diphtheria, pertussis and tetanus (DPT) vaccine earlier. Immunized children had a protection. The relative risk of non- immunized group was 2.7. Air pollution in the urban area was stronger relating factor for bronchial asthma than pneumonia. The children with breast feeding as compared to bottle feeding had protection from pneumonia and severe disease. The children with Lower socio-economic status had the greater risk of ARI episodes. As the per capita income increased ARI was decreased. Decrease of literacy rate accounted for an increase in magnitude of ARI. The Study concluded that, the Health education to take care of the ARI child in the home itself for preventing pneumonia death can change attitude and health care seeking behaviors of parents and other family members.[24]

Md Abul Kalam Azad (2009), conducted a study to identify the significant risk factors for ARI in under-five children. The data for this study was collected from the 2004 Bangladesh Demographic and Health Survey (BDHS 2004) that comprised of sample of 11,440 ever-married women of age 10-49 years and their children born 0-59 months prior to the survey date. Results showed that, prevalence of ARI is correlated to child's age, gender, body weight and vitamin A deficiency. Family's socio-economic status was found to be associated with mother's characteristics like age, malnutrition, education level. The study concluded that, health education regarding ARI is needed to women with health education messages both at school and to teen age, uneducated or less educated; poor mothers. Among the vulnerable groups community care promoting health education, good nutrition, vitamin A supplementation and treatment service for ARI should be provided, especially for poor and teenage pregnant women to reduce mortality due to ARI among these children.[25]

Savita MR, Nandeeshwara SB, Pradeep kumar MJ, Ul-Haque F, Raju CK (2007), conducted a study to identify various modifiable risk factors for ALRI among children in the age group of one month to five years at Cheluvamba Hospital, Government Medical College, Mysore. 104 ALRI cases were selected based on WHO criteria for pneumonia, with the same number of healthy control group. The panel illiteracy, low socio-economic status, overcrowding and partial immunization (p value <0.05 in all) were the significant socio-demographic risks factors. Administration of pre-lacteal feeds, early weaning, anemia, rickets and malnutrition (p value < 0.05 in all) were the nutritional risk factors. Use of kerosene lamps, biomass fuel pollution and lack of ventilation (p value, <0.05 in all) were the environmental risk factors. Logistic regression analysis revealed that, partial immunization, overcrowding and malnutrition significant risk factors. The study concluded that, modifiable risk factors for ALRI can be well managed by effective education to the community and appropriate initiatives taken by the government.[26]

Yousif TK, Khaleq BA (2006), conducted a hospital based **longitudinal study** to determine the epidemiology of ARI in children of under-five years at Tikrit General Teaching Hospital, Tikrit. The sample consisted of 2450 children under-five years of age in the outpatient clinic who were under treatment of ARI. Among these 216(8.8%)

had very severe disease, 480 (19.6%) had severe pneumonia, 1181 (48.2%) had pneumonia and 573 (23.4%) had no pneumonia (cough or cold). The study showed that, in the first year of life 1539 (62.8%) of cases occurred among all ARIs cases. Age and ARI severity showed high significant association. About 162 (6.6%) of total ARI cases was constituted by children of highly educated mother. There was a significant association between mothers' educational level and occurrence of ARI, and there was a highly significant association between ARI severity and the mothers' educational level. The study concluded that, the majority of mothers were unable to recognize the dangerous signs and risk factors of ARI as there was real lack of effective ARI education program. The study recommended that, information about ARI should be provided to mothers through mass media.[27]

M.K. Kakeri, P. Kanchi (2005), conducted **an observational study** regarding Acute Respiratory Tract Infections and some associated epidemiological factors in under-five children at Bombay hospital, Mumbai. Among 176 study samples 52(29.55%) suffered from mild ARI, 76 (43.18%) suffered from moderate ARI and 48(27.27%) suffered from severe ARI. The researcher concluded that, most (59.1%) of the ARIs occurred in children below the age of 5 years than infants (40.9%). The health education to the mothers, regarding proper breast feeding, care during ARI and nutrition will prevent the hospitalization and deaths of under-fives due to ARI.[28]

Sorenson K A et. all (2003), conducted **a prospective community based study** to identify risk factors for Acute Respiratory Infections at town of Sismiut, Greenland. About 288 children aged 0-2years were selected as samples for the study. The study revealed that, sharing of bedroom with adults and with children aged 0-5years were the risk factor for upper respiratory tract infections, while exposure to passive smoking and sharing a bedroom with children aged 0-5years were risk factors for lower respiratory tract infections. Passive smoking accounted for 47%, while child care centers accounted for 48% for the attributable population risk of lower respiratory tract infections.[29]

Acharya D, Prasanna KS, Nair S, Rao (2003), conducted **a community based longitudinal study** to investigate ARI in children at a coastal village Maple, Udupi district, Karnataka, India. There were 91 children under 3 years of age selected

for the study. It was identified that, overall incidence of ARI was 6.42 episodes per child per year. Each episode lasted for approximately 5.06 days. The mean duration of ARI in one year was 32.5 days for each child. Simple Cough & Cold (no pneumonia) were responsible for 91.3% of ARI episodes in children. About 8.2% children developed pneumonia and 0.51% of them had severe pneumonia. Incidence of ARI was same among both the genders of children. It was noticed that, there were no variations in incidence among various ages in contrast to incidence of pneumonia, which was higher among infants. It was also noticed that, children residing in poor housing with smoke producing conditions suffered more frequently.[30]

Sikolia DN, Mwololo K, Cherop H, Hussein A, Juma M, Kurui J (2002), conducted a **retrospective cross-sectional survey** to determine the prevalence and associated risk factors of ARI among under-five years of age, at Kibera Lindi village, Nairobi, Kenya. With the sample of 300 children, a quota sampling technique was used, and the data was collected through an interview schedule. It was found that, ARI was prevalent with incidence of 69.7% in the area. The relative risk factor of mud walled houses was 1.13, for the houses without windows was 1.14, for overcrowding was 1.24, for cooking fuel (firewood) was 1.42, for cooking fuel (kerosene) was 1.18, for cooking near the bed was 1.35, which were the risk factors for ARI. Study revealed that, over-crowding; Smoke emissions and housing were the prevalent factors in Kibera, Lindi Village. The study concluded that, living in well-ventilated houses with good-size windows, avoid overcrowding (number of occupants per room) and effects of indoor air pollution (smoke emissions) are the areas which must be opened for health education on prevention of ARI in under-five children.[31]

Literature related to knowledge of mothers of under-five children regarding Respiratory Tract Infection

Shireen Qassim Bham, Farhan Saeed and Manzar Alam Shah (2016), conducted **a cross-sectional survey** in department of Pediatrics at Darul Sehat Hospital. Total sample size was 335. Out of 335 children 228(68%) had ARI. Two hundred sixty five (81%) of mothers acquired higher than secondary education. Two hundred ninety six (92%) mothers were house wives and 216 (66%) mothers had less

than two children. Mean age of the children was 20 months ±17 SD while that of the mothers was 29 years ± 4 SD. Mean birth weight of the children was 2.7 kg ±1.8 SD. Mean duration of ARI was five days. Two hundred twenty (85%) had monthly earning of > Rs.20, 000/m. Joint family system constituted 201 (62%) and 325 (99%) of the children were delivered at hospital. Fully vaccinated children by EPI were 309 (94%) while 261 (80%) were vaccinated against Pneumonia. Only 36 (11%) of the children were suffering from under nutrition and 229 (69%) were breast fed. 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.[32]

Hilf TK (2013), conducted **a cross sectional cohort study** to assess the knowledge, practice and attitude of mothers about child survival at Primary Health Care Centers, Tikrit city. The sample comprised of 760 mothers of children below 2 years of age. The data was collected by using a structured interview schedule. The results revealed that a maximum 82.3% were housewives and 86.9% were in the age group of 25-34years and 31% were highly educated. The study concluded that there was none satisfactory result about the knowledge and practice of mothers regarding diarrheal disease and ante-natal care, but about the knowledge of ARI risk signs it was 65%. The results of the study suggested that there was a need for educating the mothers for knowledge and practice of perinatal care, breast feeding, diarrheal diseases and ARI.[33]

Saunders S. (2013), conducted **a semi structured survey study** to evaluate the child health related knowledge, attitudes and practices (KAP) of mothers of under-five children at Kep, Cambodia. Total sample size was 200 mothers. A convenience sampling technique was used for the study. The results of the study showed deficient KAP of common childhood illnesses among the mothers. Vaccination rates, nutritional status of children and the antenatal care for mothers were very poor. Public health care system was used by one-quarter of those interviewed for their child's last episode of acute respiratory infection, diarrhea or worms. The study concluded that, there was insufficient knowledge, attitude and practices related to maternal child health. To implement local educational programs for women of child bearing age an urgent

intervention was indicated specifically regarding immunizations, sanitation and treatment of diarrhea, worms and ARI.[34]

Hashmi A, Kumar R, Soomro JA, Ghouri A. (2012), conducted **a cross sectional study** to evaluate the health seeking behavior of mothers regarding ARI in under-five children and to assess the knowledge, attitude & practices of mothers regarding ARI at Civil Hospital, Mithi of Tharparkar Desert, Pakistan. Total number of sample was 100 mothers. Sampling technique was convenience sampling technique. The data was collected by using interview technique. Data was entered and analyzed on SPSS 10. The results of the study revealed that 72% of the mothers had knowledge about ARI and were able to recognize it but 28% had no knowledge about ARI. 56% of the mothers took ARI as a serious disease and about 44% did not. Breast feeding should be continued during illness was said by 76% of the mothers and 24% said routine feeding should not be continued during ARI. The study concluded that, the knowledge was low among less educated mothers of children with ARI. So, Interventions like media campaign, health education sessions, banners, Lady Health Workers (LHW) and NGOs etc are needed to improve knowledge, attitude and practice of mothers which can contribute in reducing child mortality rate due to ARI.[35]

Devi Ashalata W. (2012), conducted **a survey** to assess the knowledge, practices and attitude on acute respiratory infection among mothers of under-five children attending the MCH clinic, Ramghat, Pokhara, Kaski District, Nepal. The number of total sample was 100 mothers of under five children. The study revealed that, 73% had fair knowledge of ARI, 97% of them had good practice, and 91% of them had good attitude regarding ARI. The results showed no significant association between the knowledge score and selected variables like age, type of family, education, immunization, family income, food habit, cross ventilation and disposal of waste material. It also showed no significant correlation between the knowledge and attitude ($p>0.05$) and no significant correlation between the knowledge and practice ($p>0.05$) but, there was significant correlation between the practice and attitude ($p>0.05$).[36]

Siddaraddi S. (2012), conducted **a cross sectional study** to evaluate the knowledge, attitude and practice about ARI among mothers of under five children at rural area of Vantamuri PHC, Belgaum, India. The total sample included for the study

was 400 mothers of under-five children. The data was collected through a questionnaire. The results of the study revealed that mothers in the age group of 20- 29 years were maximum 86.5% and majority 82.75% of the mothers were house wives. Majority 45.5% of mothers belonged to the class–V group, about 43.4% of mothers were educated up to high school and the percentage of illiterate mothers was 13.3%. Statistical significance ($p<0.001$) was found about the association of mothers educational status and knowledge regarding ARI that it can be prevented by immunization of the child against measles. Statistical significance ($p<0.001$) was found about the association of mothers educational status and knowledge about breast feeding that it should be continued during ARI. The study concluded that the cause of morbidity and mortality in under-five children was due to very poor knowledge of mothers. The health of the children especially of the infants is affected by mothers or parents socio-cultural, educational and socio-economic conditions. Therefore, it is very essential to improvement in knowledge of mothers of under five children.[37]

Bnandyopadhyay D, Ahemed T. (2012), conducted **a cross sectional study** to assess the knowledge, attitude and practice regarding the ARI among mothers in both urban & rural communities of Burdwan district, West Bengal, India. The total sample size for the study was 600 mothers. Data was collected by using a structured questionnaire from October 2011 to February 2012. The study revealed that, there were about 50% illiterate mothers (70% in rural area) and 66.7% mothers were housewives, 40% of mothers preferred private set up as a place of choice for treatment (more in urban area 55%), as a choice of type of treatment 70% of mothers preferred allopathic medicine, 42.5% of mothers rated diseases as serious (more in urban area 55%). The study concluded that Health education may change attitude and health care seeking behaviors of the parents and other family members to take care of the child during ARI.[38]

Malik AY, Iqbal I. (2011), conducted **a cross sectional descriptive study** to assess the knowledge and practices of mothers about ARI in under-five children at urban slums of Multan. The sample consisted of 500 mothers of under-five children. Stratified random sampling technique was used. The data was collected through interview method by using a semi structured questionnaire during the period from April

2010 to March 2011. The results of the study showed that the mothers' knowledge regarding the ARI symptoms severity including pneumonia was inadequate. Majority 55.8% of mothers' responded health seeking while remaining 44% responded as appropriate care seeking within 24 hours of ARI. The study concluded that there was inadequate knowledge and improper health care seeking practices in mothers of urban slums regarding ARI management in their children.[39]

Denno DM, Bentsi-Enchill A, Mock CN, Adelson JW (2010), conducted a study on knowledge, attitudes and practices regarding ARI among mothers of under five children at urban areas of Kumasi, Ghana. An interview was conducted for 143 women who had at least one child aged less than five years. There was a poor maternal understanding of the etiology of ARI as based on Western standards. While the mothers were able to differentiate between mild and severe ARI symptoms which, but revealed that they would delay accessing a health care facility in the presence of the following symptoms that signify severe respiratory distress: as 11.2% for dyspnea, 18.9% for tachypnea; 21.7% for chest retraction; 30.0% cough, fever and anorexia; and 57.3% cough, fever and lethargy. These findings indicate a need for a health education program for mothers of under-five children.[40]

Khan AZ, Tickoo R, Arif T, Zaheer M. (2010), conducted a study to assess the knowledge, attitude and practice, in relation to the literacy status of mothers of under-five children with ARI at Urban Health Training Centre, Aligarh, India. A sample of 140 mothers with 265 children was selected for the study. Complete knowledge about management of ARI was observed in majority of literate mothers (75%). Complete knowledge about the management of ARIs was observed in 58 mothers, 61 had partial knowledge, and 21 had no knowledge or failed to respond satisfactorily. About 75% had the complete knowledge among 40 literate mothers, as compared to only 15.5% of the illiterate mothers. Literacy alone was not the only factor responsible. Health personnel and Mass media played an important role. 83 mothers had knowledge sources as Health personnel, the media provided information for a third of the women, friends, neighbors, or relatives provided information to 6.4% of them, and 4.3% had no knowledge about ARIs. It was concluded that media plays a vital role in providing health education.[41]

Prajapati BJ, Talsania NJ, Lala MK, Sonalia KN. (2009), conducted **a cross sectional study** to assess the knowledge of mothers regarding ARI at urban and rural communities of Ahmadabad district. The total sample size was 500 mothers living in urban (five zone) and rural area (five primary health centre of Sanand taluka). The data was collected by using a structured questionnaire from September 2008 to March 2009. The study results revealed that the majority 80% of the mothers were Hindus and the literacy status of mothers was 49.2%. About 50.8% of the mothers were illiterate. Among the illiterate majority 70% of the mothers were from rural area, while 31.4% of the mothers were from urban area. About 33.6% were graduate from the urban area among total literate mothers. About 28.4% mothers had primary level education in rural area. There were 70.4% housewives, 8.4% labourers. In urban area, there were 80.4% housewives, labourer and workers were 9.6%. In rural area, about 60.4% were housewives followed by 27.2% labourers. The level of knowledge was not satisfactory regarding seriousness of ARI. About 59.2% of the mothers rated diseases as casual, while 40.8% of the mothers rated diseases as serious. The study concluded that health education can change health care seeking behaviors and attitude of parents and other family members to take care during ARI. There is need for strengthening of activity in reproductive and child health program or integrated management of Neonatal and Child illness programme.[42]

Pai MS (2004), conducted **a correlative study** regarding ARI among infants at Udupi district. The purpose of the study was to find out occurrence of ARI among infants and to find out the knowledge of mother regarding ARI. The study showed that, the maximum (44.54%) number of infants was in the age group of 4 to 6 months. Mothers in the group of middle class family were 42.72%. It was observed that, majority (60.9%) of children in the past 3 months had 4-6 times ARI. The findings of the study showed that maximum of the mothers had average knowledge about ARI. The study concluded that the ARI is one of the leading causes of child morbidity. It also recommended that attention must be paid more on intensive planning of educational program regarding prevention and treatment of ARI for mothers of infants.[43]

Imiyu DE, Walfula EM, Nduati RW (2003), conducted **a community based cross-sectional survey** to determine the Knowledge, Attitude and Practices (KAP) of

mothers of under-five children regarding ARI at Baringo District, Kenya. The total number of sample was 309 mothers with children aged 0-5 years. Stratified random sampling technique was used. The data was collected by using interview technique in which a mixed structured and unstructured questionnaire was administered to each of the participants. The results showed that mean age was 31.5 years with the range 16-51 and 34% had no formal education. In describing pneumonia satisfactorily only 18% of mothers were appropriate. Regarding seeking health center services for severe ARI about 87.1% of the mothers responded appropriately. For positive influence on the KAP of the mothers formal education was responsible. The study revealed that, the mothers did not have the knowledge of severe forms of ARI but had good knowledge of mild forms of ARI. Their attitude to ARI was appropriate but subsequent practices were not. Poor utilization of health services can cause delayed identification of seriously ill children which in turn cause high mortality due to ARI.[44]

Onta M (2003), conducted **a descriptive and exploratory study** on knowledge, Home care Practice and Health Seeking Behavior of mothers of under-five children regarding ARI in their children at Manamaiju VDC, Kathmandu, Nepal. The 100 mothers of under-five children were selected via stratified random sampling technique. The results showed that Majority (87%) of mothers perceived that ARI is cough and cold, which information was received from health workers and family members. Correct health seeking behaviors were showed by majority (67%) of mothers. Through home care practice of the mothers 57.38% ARI children were cured. About 42.62% children were uncured. Most of the children were taken to medical shop and very small portion to sub health post. The study concluded that major impact on knowledge about ARI was due to literacy and age of the mother, but it had little relationship with the mother's attitude and practice regarding ARI.[45]

Literature related to effectiveness of Structured Teaching Program on Respiratory Tract infection

Mali S. (2015), conducted **a Quasi-experimental study** to evaluate the effectiveness of Structure Teaching Program on domiciliary management and prevention of Upper Respiratory Tract Infections among the mothers of under-five

children. The study was conducted in selected urban slums at Bangalore. The sample consisted of 60 mothers, 30 in the experimental group and 30 in the control Group. A Purposive sampling technique was used to select the samples. Structured Interview Schedule consisting of 40 items was used for the data collection. Each interview extended for a period of 30 to 35 minutes. The findings of the study showed that, none of the subjects from both the group had adequate knowledge score in the pretest. Overall pretests mean knowledge scores of Control and Experimental group was 42.2% and 48.8% respectively. The findings of the study also showed overall pretest mean knowledge was 48.2% with SD=7.3% and posttest mean knowledge was 49.1% with SD=6.6% in control group. Enhancement in overall knowledge score was 0.9% with a SD=2.7%. The difference was 0.9% in pretest and posttest mean knowledge score in control group, with paired't' test value of 1.83. The finding of the study revealed, overall pretest mean knowledge was 48.8% with SD=8.8% and posttest mean knowledge was 79.7% with SD= 7.5% in experimental group. Enhancement in overall knowledge score was 30.9% with a standard deviation of 4.2%. The enhancement was 30.9% with paired't' test value of 40.30. Overall posttest mean knowledge scores was 49.1% in the control group and 79.7% in the experimental group. The obtained't' value was 16.78* which was statistically significant at $p < 0.05$ level. The research concluded that, Structure Teaching Program was effective mean to improve knowledge of the mothers regarding domiciliary management and prevention of Upper Respiratory Infections.[46]

Singh GR. (2015), conducted **a pre experimental study** to determine the impact of Health Education on Preventive Practices of ARI among 500 Mothers living in urban slums, Bangalore. Samples were selected by using a simple random sampling technique. The data was collected by using a structured Interview schedule. Planned Health Education was delivered to the mothers of under-five children. The study findings revealed that during the pretest, the mothers had less knowledge on preventive practices of ARI among under-five children. The study concluded that the under-five children belonging to lower educated and young mothers were at a significantly higher risk of severe ARI than the under-five children of educated and higher age group mothers in Bangalore. A significant improvement has been observed in the knowledge

of mothers on preventive practices of ARI after implementing planned health education. It was evident that, the awareness in urban slum can be promoted through public health education by increasing knowledge in prevention of ARI.[47]

Merlinshiba, Hemavathy V. (2014), conducted **a Pre-experimental study** to evaluate effectiveness of Structured Teaching Program on knowledge of Acute Respiratory Infection among mothers of under-five children at Chromepet, Chennai, India. The study sample included 120 mothers of under-five children. The samples were selected by using a convenience sampling technique. The study results showed that, 48.3% were in the age group of 25-35 years, 61.6% belonged to nuclear family, 40% had primary education and 43.4% had information from TV. The overall pre-test knowledge among 120 mothers revealed that, about 83.4% (100) of them had inadequate knowledge, 16.6% (20) had moderately adequate knowledge, whereas none 0% had adequate knowledge. In the post test it showed that, 13.4% (16) had adequate knowledge, 86.6% (104) had moderate knowledge and none 0% had inadequate knowledge. The post-test and pre-test Mean was 13.2, Standard deviation was 6.1 and significant't' value was 16.7 ($p< 0.001$). The study found that there was significant ($p< 0.001$) association of educational status of mothers of under five children with their post-test knowledge regarding ARI. The study concluded that, the STP was effective in increasing the knowledge of mothers of under-five children regarding ARI.[48]

Prasanna LK, Sharma NK. (2014), conducted **a quasi-experimental study** to determine the effectiveness of STP & SIM on knowledge regarding prevention of ARI among mothers of under five children at Mahalakshmipuram, urban area, Bangalore. The total number of sample was 60 mothers of under five children. The data was collected by using a structured interview schedule. The mean posttest knowledge score 22.33 and t-value $t (29) =16.018$, $p<0.01$) of STP was apparently higher than SIM the mean post-test knowledge score 19.77 and t-value ($t (29) =9.424$, $p<0.01$) respectively. Hence STP is more effective than SIM. There was a significant association between the knowledge of subjects regarding ARI & selected demographic variables like education for STP & number of episodes of cold in children for SIM. The study findings revealed that majority of mothers had inadequate knowledge regarding ARI & its prevention. Hence, mothers should be encouraged to enhance their knowledge

regarding prevention of ARI for proper care, support and timely management to prevent complication of child.[49]

Tauro VG, Dasarathan I. (2014), conducted **a True experimental study** to assess the effectiveness of educational package on knowledge regarding Pneumonia and its prevention among mothers of under-five children at Dakshina Kannada district of Karnataka State, India. The research design was time series design. Total 480 (240 experimental and 240 control) samples were included in the study. Random sampling technique by lottery method was used to select the four sub-centres each of Amblamogaru and Kudupu PHC's. Systematic sampling was utilized to select 60 samples from each of these sub-centers. The data was collected by using the Structured Knowledge Questionnaire. The pre-test was conducted on the day one and after administration of the educational package post-test were conducted using the same questionnaire on the eighth day and three months after intervention. The findings of the study showed that there was a significant difference between the mean pre-test knowledge score and mean post-test I and post-test II knowledge scores of mothers in the experimental group (F2, 717 =529.734, $p<0.001$), but in the control group (F2, 717=0.264, p=0.768) there was no significant difference. Post hoc analysis also revealed a significant increase in the knowledge from the pretest to posttest I and posttest II at 0.001 level. In the experimental group significant association was found between the pre-test knowledge scores and demographic variable for occupation ($\chi 2$ = 21.19, $p<.001$) and fuel used for cooking ($\chi 2$= 7.15, $p<.05$). In the post-test I significant association was found between knowledge scores and demographic-variable occupation ($\chi 2$= 21.84, $p<.001$). Thus the study concluded that the educational package on Pneumonia and its prevention among the mothers of under-five children was indeed effective, the largest increase was observed on the 8th day and there was consistent increase after three months of administration of the educational package.[50]

Bhumi R, Arpan P, Ravindra HN. (2013), conducted **a pre-experimental study** to assess the effectiveness of Structured Teaching Program on Knowledge Regarding Acute Respiratory Tract Infection among mothers of under-five children at Piparia, Vadodara. The total number of sample was 50 mothers. The non-probability convenient sampling technique was used to select the sample. The data was collected

from 8-11-2013 to 24-11-2013. The tool consisting of 30 knowledge component of Acute Respiratory Tract Infection was used for data collection. The reliability of the tool was established by using test retest method. The tabulated't' value for 49 degree of freedom was 2.00 and calculated' value greater than in area wise distribution of knowledge scores. The calculated' value were much higher than tabulated' value at 0.05 level of significance which was statistically acceptable level of significance. The study concluded that there was significance difference in knowledge scores of mothers of under-five children regarding Acute Respiratory Tract Infections. The posttest knowledge scores of mothers were much higher as compared to pretest knowledge scores. The study proved that the Structured Teaching Program was highly effective in improving knowledge of mothers regarding ARTI.[51]

Parvez M M, Wiroonpanich W, Naphapunsakul M. (2010), conducted a **quasi-experimental study** to evaluate the effects of the educational program on child care knowledge and behaviors of mothers of children aged under-five years. Fifty mothers of under-five children who were hospitalized with pneumonia were chosen for the study by using a purposive sampling technique in experimental and control group. Mothers of the study group received educational program together with children routine care, whereas control group mothers just attended their children receiving treatment. Subsequently mothers' knowledge, evaluated through Structured Knowledge Questionnaire and behavioral information, through Behavioral Checklist Form were evaluated. Findings revealed that, subjects of both groups are homogenous in terms of demographic characteristics, but significant difference was observed regarding their mean (±SD) knowledge (25.04±5.81 vs 34.64±3.86, p<0 .001) and behavior score (6.64±2.23 v/s 17.68±1.89; p<0.001) between control and study group respectively. It was concluded that educational program supported that nurses need to involve themselves through helpful method of the educational program to teach mothers' about pneumonia and guide their behavior in caring their sick children. Such program could effectively increase both knowledge and behavior of mothers of children under five with pneumonia.[52]

Edwin SG. (2009), conducted a **quasi-experimental study** to assess the effect of planned teaching program on knowledge, attitude and practice of acute respiratory

infections among mothers of under-five children. Total number of sample was 60 (30 each in the experimental & control groups). Data was collected by using a structured interview schedule. The findings of the study revealed that there was a gross inadequacy (100%) of knowledge regarding ARI among mothers in both the groups. Planned teaching program was found to be effective. Significant relationships were found between knowledge on practice with certain demographic variables like educational status, type of family and monthly income. The study concluded that the health education imparted to the mothers had positive effect on their knowledge, attitude and impact on practice regarding Acute Respiratory Infections.[53]

Sasikala T, Dr. S Jayagowri. (2008), conducted **a quasi-experimental study** to evaluate the effectiveness of Structured Teaching Program (STP) on ARI among mothers of hospitalized children at Tamilnadu, India. The sample consisted of 50 mothers of under-five children having ARI. The data was collected through Structured Questionnaire to assess the knowledge, attitude and practice of mothers regarding ARI. After pre-test Structured Teaching Program (STP) on ARI was given with appropriate audio visual aids. The post test was conducted after three days after STP. The study findings revealed that after STP there was a significant improvement in the mother's knowledge about (96%), attitude about (80%) and practice about (80%) regarding ARI.[54]

Summary

The studies reviewed illustrate that there are many physical, physiological, and psychological benefits of participating in Structured Teaching Program on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children at Era's Lucknow Medical College, Lucknow, U.P.

The statistical results between pre-test and post-test was shown remarkable differences among mothers of under five children at Era's Lucknow Medical College, Lucknow, U.P.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology is a way of solving the problem. Research methodology include research approach research design, setting, population, sampling criteria method of sample selection, development and description of tool, validity, reliability, pilot study, procedure of data collection, plan for data analysis and ethical consideration.[19]

The methodology of research indicates the researcher overall plan for obtaining answer the research questions and it spell out the strategies that the researcher adopts to develop the information that the accurate objectives and interpretable (Dempsey, Patricia and author Dempsey, 2001)

Research Approach

Research approach involves the description of the plan to investigate the phenomenon under study in a structured (quantitative), unstructured (qualitative), or combination of the two methods (quantitative – qualitative integrated approach).

Quantitative research approach is an inquiry into an identified problem, based on testing a theory composed of variables, measured with numbers and analyzed using statistical techniques.[19]

In the present study quantitative research approach was used.

Research Design

Polit and Hungler (2004) "Research design is overall plan for addressing a research questions, including specification for enhancing the study integrity."

Research design is also known as a blue print that researchers select to carry out their research study. Research design is used interchangeably with the term methodology.

Pre experimental research design is considered very weak, because the researcher has very little control over the experiment.[19]

In the present study **pre-experimental** (one group pre-test post-test) research design was used.

GROUP	PRE-TEST	INTERVENTION	POST-TEST
STUDY GROUP	O_1	X	O_2

Figure 2: Schematic Representation of Research Design

Keys

O_1 - Pre-test on knowledge regarding Prevention of Upper Respiratory Tract Infection among mothers of under five children.

X- **Intervention** - Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection.

O_2 - Post-test on knowledge regarding Prevention of Upper Respiratory Tract Infection among mothers of under five children.

Setting of the Study

The setting of the study is stated as the physical location and condition in which data collection has taken place in a study.

This study was conducted in pediatric ward at Era's Lucknow Medical College & Hospital Lucknow. U.P.

Sample/Population

Sample may be defined as representative unit of a target population, which is to be worked upon by researchers during their study. Sample consists of a subset of units

which comprise the population selected by investigators or researchers to participate in their research project.

Population is the aggregation of all the units in which a researcher is interested. It is the set of people or entities to which the results of a research are to be generalized.[19]

In the present study sample are mothers of under five children who has fulfilled the inclusion criteria.

Sample Size

In the present study sample size are 60 samples of mothers of under five children.

Criteria for Sample Selection

Inclusion criteria: Mothers of under five children

Exclusion criteria: Mothers of New born, Infants, School age children

Inclusion criteria: The study includes -

1. Mothers of under five children in Era's Lucknow Medical College, Lucknow.
2. Mothers of under five children who were available at the time of data collection.
3. Mothers of under five children who was willing to participate in the study.

Exclusion criteria: The study excludes -

1. Mothers of neonates, infants, school age children.
2. Mothers of critically ill child.
3. Mothers of under five children who was not willing to participate in the study.

Sampling Techniques

Sampling is a process of selecting a part of the assigned population to represent the entire population.[19]

Nonprobability sampling is a technique wherein the sample are gathered in a process that does not give all the individuals in the population equal chances of being selected in the sample.[19]

Non-probability sampling is based on a researchers judgment and there is possibility of bias in sample selection and distort findings of the study. Nonetheless, this sampling technique is used because of its practicality. It can save time and cost, and at the same time, it is a feasible method given the spread and features of a population.[19]

Purposive Sampling

In this sampling technique, samples are chosen by choice not by chance, through a judgment made by researcher based on his or her knowledge about the population .[19]

In the present study Non probability sampling method was done by using purposive sampling.

Variables

Variables are qualities, properties, or characteristics of person, or situation that change or vary.[19]

In the present study variables are as follows-

Independent variable

Independent variables is a stimulus or activity that is manipulated or varied by the researcher to create the effect on the dependent variable.[19]

In the present study independent variable is structured teaching program for mothers of under five children regarding prevention of upper respiratory tract infection

Dependent variable

Dependent variable is the outcome or response due to the effect of the independent variable, which researcher wants to predict or explain.[19]

In the present study dependent variable is Knowledge among mothers of under five children regarding prevention of upper respiratory tract infection.

Instruments Used for the Study

Development of the Tool

An instrument selected in a research study should be as far as possible the vehicle that would best obtain data for drawing conclusions which were pertinent to the study. **(Treacee & Trecee, 1982)**

Based on the objectives of the study a structured interview schedule was prepared in order to assess the knowledge of mothers regarding prevention of upper respiratory tract infection at Era's Lucknow Medical College & Hospital, Lucknow, U.P. After extensive and systematic review of literature the researcher developed the structured interview schedule.

The steps followed in preparation of tool were

1. Review of literature
2. Preparation of blue print

Related literature reviews like books, journals, articles, published research studies and unpublished research studies were reviewed and opinions of subject experts was considered for the development of the tool.

The Blue Print

The Blue Print was prepared to construct the tool, there were 30 questions on the knowledge regarding upper respiratory tract infection in children.

Table 1

Sr. No.	Content Area	Multiple Choice Questions	Total No. of Question	Percentage
1.	**Anatomy & Physiology of respiratory tract**	1, 2	2	6.66%
2.	**Cause of Upper Respiratory Tract Infection**	3, 4, 5, 6, 7, 8	6	20%
3.	**Clinical features of Upper Respiratory Tract Infection**	9, 10, 11, 12, 13, 14	6	20%
4.	**Home care management of Upper Respiratory Tract Infection**	15, 16, 17, 18, 19, 20	6	20%
5.	**Preventive Measures of Upper Respiratory Tract Infection**	21, 22, 23, 24, 25	5	16.67%
6.	**Vaccination**	26, 27, 28, 29, 30	5	16.67%
Total			30	100%

Description of the Tool

The tool for data collection had two sections – part 1 and 2

Part 1: Socio – demographic data

This part include age, educational status, occupational status, place of resident, family income, type of family, number of living children, immunization status and family history of respiratory disease.

Part 2: Structured Questionnaire

This part consists of 30 items related to knowledge about anatomy & physiology, causes, sign & symptoms, mode of transmission, clinical features, home management and preventive measures of respiratory tract infection in children.

Scoring of the items

There were 30 items. Each item has four options with one accurate answer. The score for correct response to each item was one and incorrect response was zero, thus for 30 items maximum obtainable score was 30 and minimum was zero.

$$\text{Percentage} = \frac{\text{Obtained Score}}{\text{Total Score}} \times 100$$

Table 2

Score	Percentage (%)	Level of knowledge
0-15	0-50%	Inadequate Knowledge
16-23	51-75%	Moderate Knowledge
24-30	76-100%	Adequate Knowledge

Testing of the Instrument

Content Validity & Reliability of the Tools

a. Content Validity

According to Treece and Treece, "Validity refers to an instrument or test actually testing what it is supposed to be testing."

According to Polit & Hungler, "Validity refers to which an instrument measures what it is supposed to be measuring."

In the present study Content validity of the tool was determined by expert opinion.

b. Reliability

Reliability is the degree of consistency and accuracy with which an instrument measures the attributes for which it is designed to measure.[19]

In the present study Content reliability will was checked by 10 experts of various department.

The tool was tested for reliability on 6 mothers of under five children during pilot study by using Test-retest method and applying Karl Pearson's coefficient of correlation formula. Brown's prophecy formula was used to find out the reliability of the tool. Spearman brown prophecy formula $r_{II} = 2r/1+r$

The reliability of the tool was found 0.83, hence the tool was found more reliable.

Collection of the Data

Structured Interview schedule was planned for collection of data by using structured teaching program.

Plan for Data Analysis

- **Descriptive statistics:** Descriptive statistics include percentage, frequency, mean and standard deviation for mothers of under five year children regarding knowledge of prevention of respiratory tract infection.
- **Inferential statistics:** Inferential statistics include paired 't'test and chi square for the assessment of knowledge of mothers and to associate the socio demographic variables is planned.

Pilot Study

Pilot study is a small scale study version done in preparation for a study.

-**Polit & Hungler**

The purpose of the Pilot Study was:

- To evaluate the tool/instrument developed.
- To find out the feasibility of conducting the final study.
- To determine the method of statistical analysis.

In this study pilot study was conducted at Charak Hospital & Research Center, Lucknow. The study was carried out from 03/06/2019 to 10/06/2019, after obtaining the permission from Director of Charak Hospital & Research Center, Lucknow and the consent from the mothers of under five children.

Six (6) samples were selected for the study. The pretest was conducted for group of mothers of under five children by using Structured Interview Schedule, followed by Structured Teaching Program as an intervention for the mothers of under five children. After 7 days the post-test was conducted by using the same Structured Interview Schedule.

The findings of the pilot study revealed that Structured Teaching Program was effective in improving the knowledge of mothers of under five children regarding

prevention of Upper Respiratory Tract Infection. The pilot study confirmed that the final study is feasible.

Procedure for Data Collection

The researcher obtained Ethical Clearance from Era University, Lucknow and formal permission from Medical Superintendent, Era's Lucknow Medical College, Lucknow to conduct the study. The researcher used purposive sampling technique to select the study subject. The data was collected from 17/06/2019 to 15/07/2019.

The pre-test data was collected from 60 mothers of under five children.

The steps used for data collection were as follows:

1. The researcher introduced himself and explained the purpose of the study to the mothers of under five children.
2. The informed consent was obtained from the samples.
3. The pre-test included assessment of samples knowledge regarding prevention of upper respiratory tract infection through Structured Interview Schedule.
4. The data was collected with the help of a structured interview schedule from 17/06/2019 to 15/07/2019 in morning 9 am to 1 pm. Approximately 5 mothers were interviewed per day and about 40 minutes was spent with each mother.
5. Structured Teaching Program was administered after completing the pre-test of all mothers of under five children.
6. The post-test of the study was carried out after seven days of administering the Structured Teaching Program, using the same tool as in the pre-test.
7. Data collected was then tabulated and analysed.

Plan for Data Analysis

Statistical analysis helps researchers make sense of quantitative information statistical procedures enable researchers to summarize, organize, evaluate, interpret, and communicate numeric information.

The data was analyzed in terms of the objectives of the study using descriptive and inferential statistics. The plan of the data analysis was developed under the excellent direction of the experts in the field of Nursing and Statistics. The plan of data analysis was as follows:

1. Organizing the data in a master sheet on computer.
2. Analysis of the demographic characteristics of the sample.
3. Computation of frequency, percentage, means, standard deviation, and range to describe the data
4. Classification of knowledge score
5. Descriptive Inferential statistics were used to draw the conclusion.
   a. Descriptive statistics were used to draw the following conclusion.
      i. Frequency and percentage distribution to analyse the demographic data of mothers of under five children and their knowledge.
      ii. Mean, Median, Mode, Standard Deviation and Range to assess the knowledge.
   b. Inferential statistics were used to draw the following conclusion.
      i. Paired‘t’ test to test the hypothesis on the effectiveness of Structured Teaching Program.
      ii. Karl Pearson’s Coefficient of Correlation for reliability of the tool.
      iii. Chi-square test for contingency table to find the association between the knowledge and the demographic variables.
6. Calculation of correlation coefficient (r)
7. Representation of data in table and graphs.

This chapter on research methodology has thus explained the various activities carried out and planned by the researcher during the course of this thesis.

Summary

This chapter deals with the research approach, research design, research setting, target population, sample & sampling technique, inclusion and exclusion criteria, selection & development of tool, description of the tool, validity of the tool, reliability of the tool, pilot study, data collection procedure, and plan for data analysis.

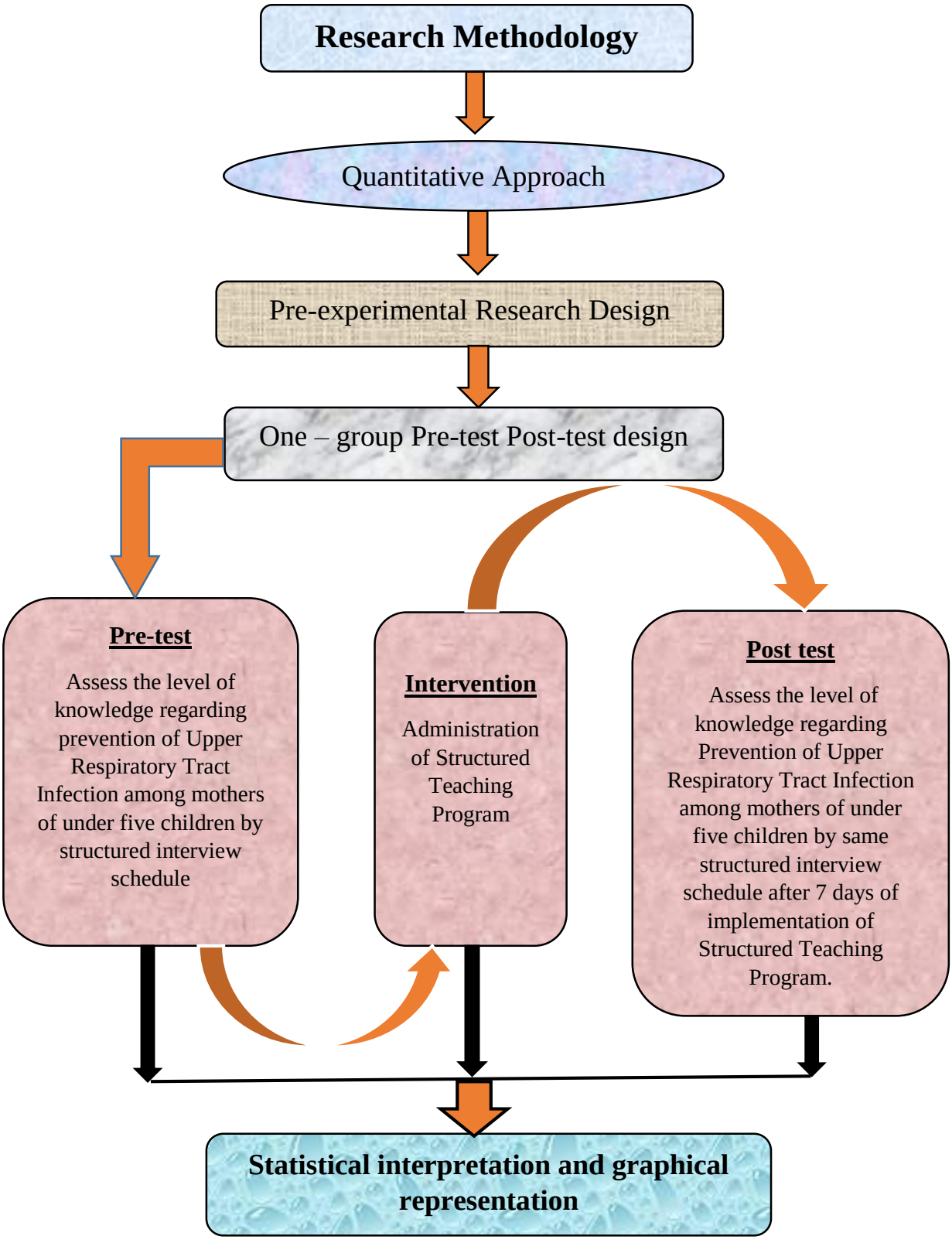


Fig 3 – Schematic Diagram of Research Design

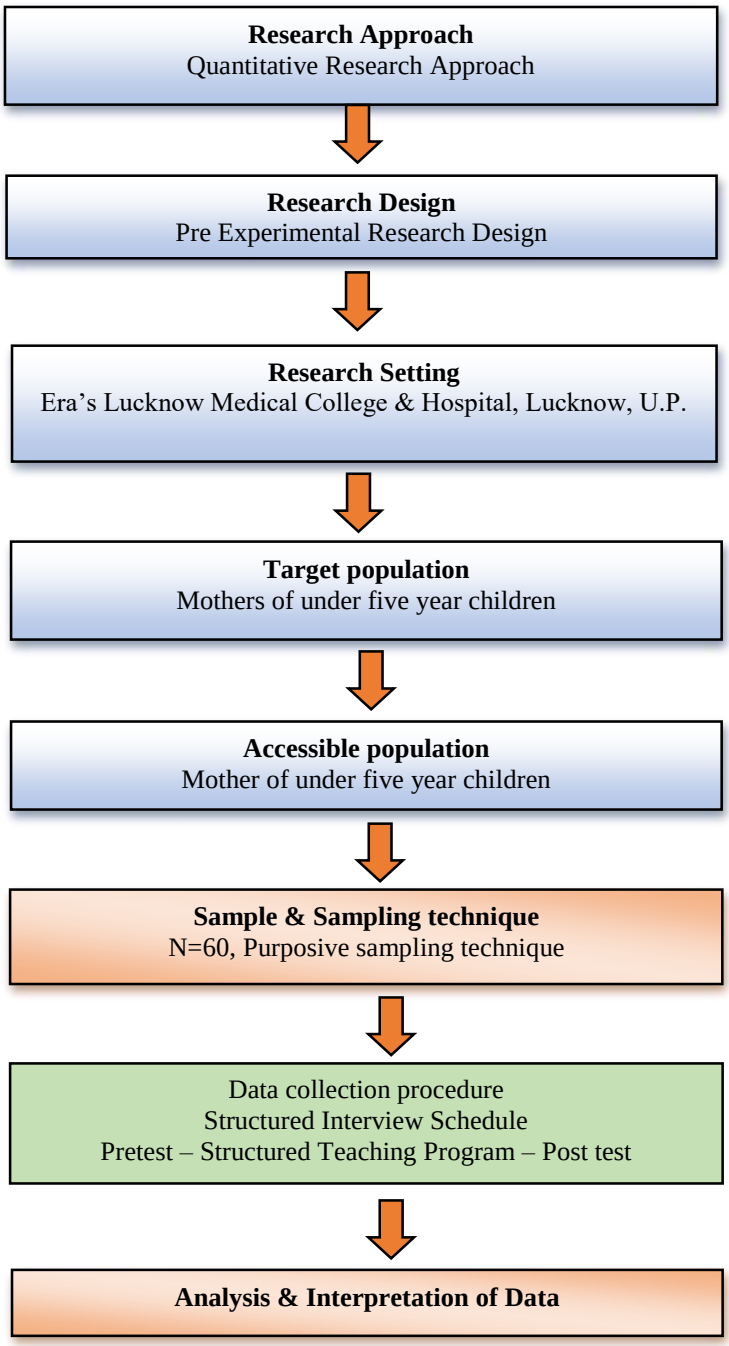


Fig 4: Schematic Representation of Research Methodology

CHAPTER IV

DATA ANALYSIS and INTERPRETATION

Analysis is the process of organizing and synthesizing data so as to answer research question and test hypothesis. Interpretation is the process of making sense of the results and of examining these implications.

Polit DF

This chapter deals with the analysis and interpretation of data collected to assess the knowledge of mothers of under five children regarding prevention of upper respiratory tract infection. The analysis and interpretation of data in this study are based on data collected through structured questionnaire from 60 mothers of under five children. The data were computed by using descriptive and inferential statistics based on the objectives of the study.

Objectives

- To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.
- To evaluate the effectiveness of Structured Teaching Program regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.
- To determine the association between levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

Presentation of Data

To begin with, data were entered in a master sheet, for tabulation and statistical processing.

The findings were presented under the following headings.

Section I: Distribution of respondents according to Socio-demographic variables.

Section II: **A.** Aspect wise distribution of scores during pre-test and post-test.

B. Association between pre-test and post-test knowledge scores.

C. Association between knowledge levels with demographic variables.

D. Item wise distribution of knowledge scores in pre-test and post-test.

SECTION I

SAMPLE CHARACTERISTICS

Table: 3

Frequency and percentage distribution according to socio-demographic variables

N=60

S No.	Demographic Data	Category	Frequency	Percentage %
1.	**Age**	Below 20	0	0
		21-25	27	45
		26-30	20	33.33
		Above 30	13	21.67
2.	**Educational Status**	Illiterate	13	21.67
		Primary Education	9	15
		Higher Primary	6	10
		Higher Secondary	4	6.67
		Senior Secondary	12	20
		Degree or others	16	26.67
3.	**Occupational Status**	Housewife	54	90
		Working	3	5
		Business	3	5
4.	**Place of Residence**	Urban	23	38.33
		Rural	37	61.67
		Slums	0	0
5.	**Family Income**	Below 10,000	37	61.67
		10.000-20,000	13	21.67
		20,000-30,000	2	3.33
		Above 30,000	8	13.33
6.	**Type of family**	Nuclear Family	36	60
		Joint Family	24	40

7.	**No. of living children**	1	26	43.33
		2	17	28.33
		More than 2	17	28.33
8.	**Immunization Status**	Completely	48	80
		Partially	11	18.33
		Not immunized	1	1.67
9.	**Family History of Allergic Respiratory Disease**	Yes	12	20
		No	48	80

The table 3 reveals the frequency and percentage distribution of socio-demographic characteristics.

A total of 60 mothers of under five children were selected as sample to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

Distribution of demographic study subject was done according to the categories as defined:

Age revealed that majority 27 mothers (45%) of under five children were in the age group of 21-25 age group, followed by 20 mothers (33.33%) were between 26-30 age group and 13 mothers (21.67%) were above 30 age group.

According to **Educational Status,** majority 16 mothers (26.67%) of under five children were educated at degree level, followed by 13 mothers (21.67%) were illiterate, 12 mothers (20%) were educated at senior secondary level, 9 mothers (15%)

were educated at primary level, 6 mothers (10%) were educated at higher primary and 4 mothers (6.67%) were educated at higher secondary level.

According to **Occupational Status,** majority 54 mothers (90%) of under five children were housewife, followed by 3 mothers (5%) were working, 3 mothers (5%) had business.

According to their **place of residence,** majority 37 mothers (61.67%) were living in rural area, followed by 23 mothers (38.33%) were in urban area.

According to their **family income,** majority 37 mothers (61.67%) were belong to below 10,000 rupee/month, 13 mothers (21.67%) were belong to 10,000-20,000 rupee/month, 8 mothers (13.33%) were belong to above 30,000 rupee/month and 2 mothers were belong to 20,000-30,000 rupee/month.

According to the **type of family,** majority 36 mothers (60%) were living in nuclear family, followed by 24 mothers (40%) were living in joint family.

According to their **number of living children,** majority 26 mothers (43.33%) were having one child, 17 mothers (28.33%) were having two children and then 17 mothers (28.33%) having more than two children.

According to the **immunization status,** majority 48 mothers (80%) were given vaccines completely to their child, 11 mothers (18.33%) were given vaccines partially to their child and 1 mother (1.67%) was not given vaccination to her child.

According to the **family history of allergic respiratory disease,** majority 48 mothers (80%) have no family history of any respiratory disease in their family, followed by 12 mothers (20%) have family history of respiratory disease in their family.

GRAPHICAL REPRESENTATION OF SOCIO – DEMOGRAPHIC VARIABLES

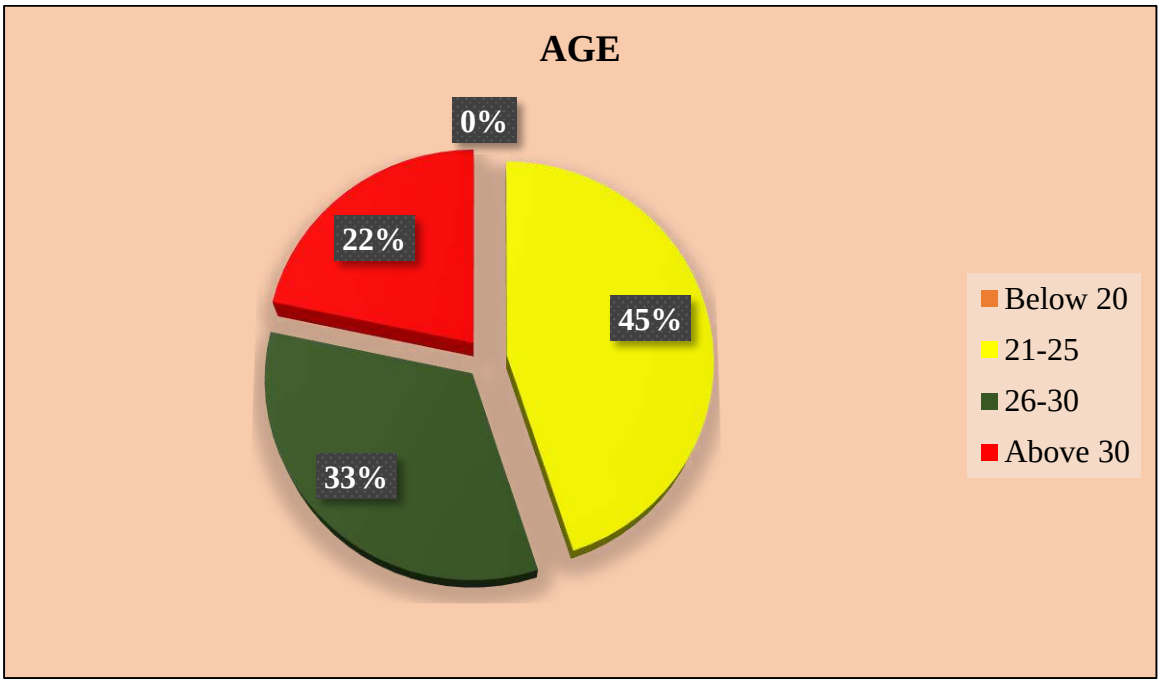
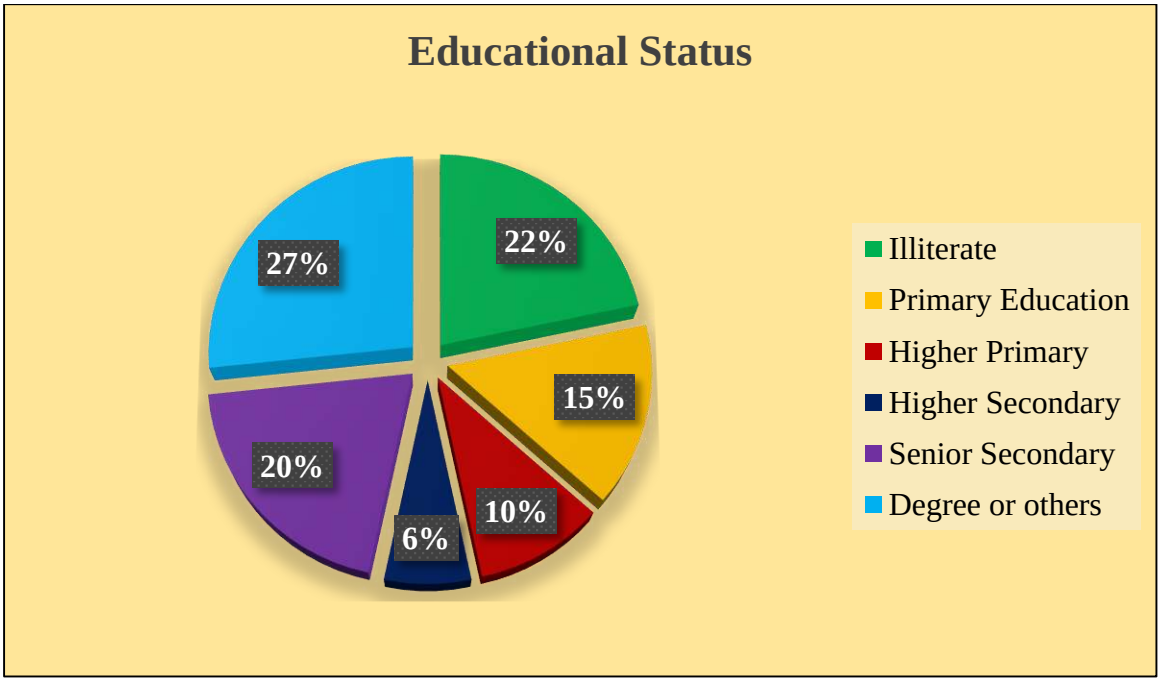


Figure 5: Graphical representation of percentage distribution of mothers of under five children according to their age



Graph 6: Graphical representation of percentage distribution of mothers of under five children according to their educational status

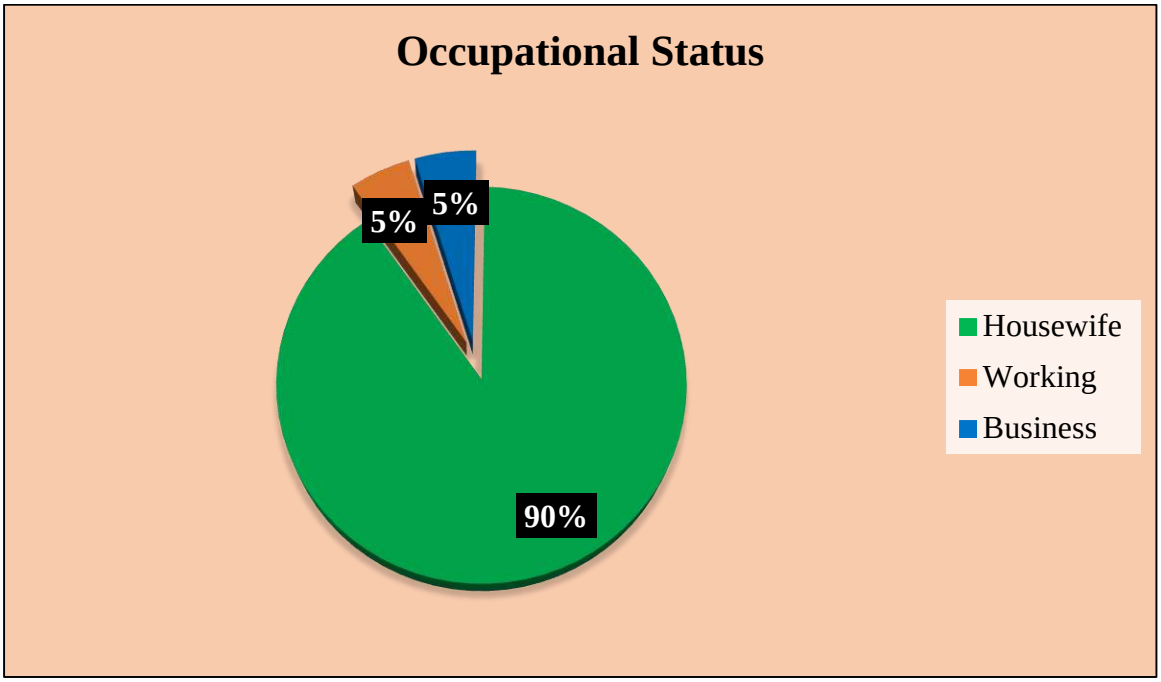


Figure 7: Graphical representation of percentage distribution of mothers of under five children according to their occupational status

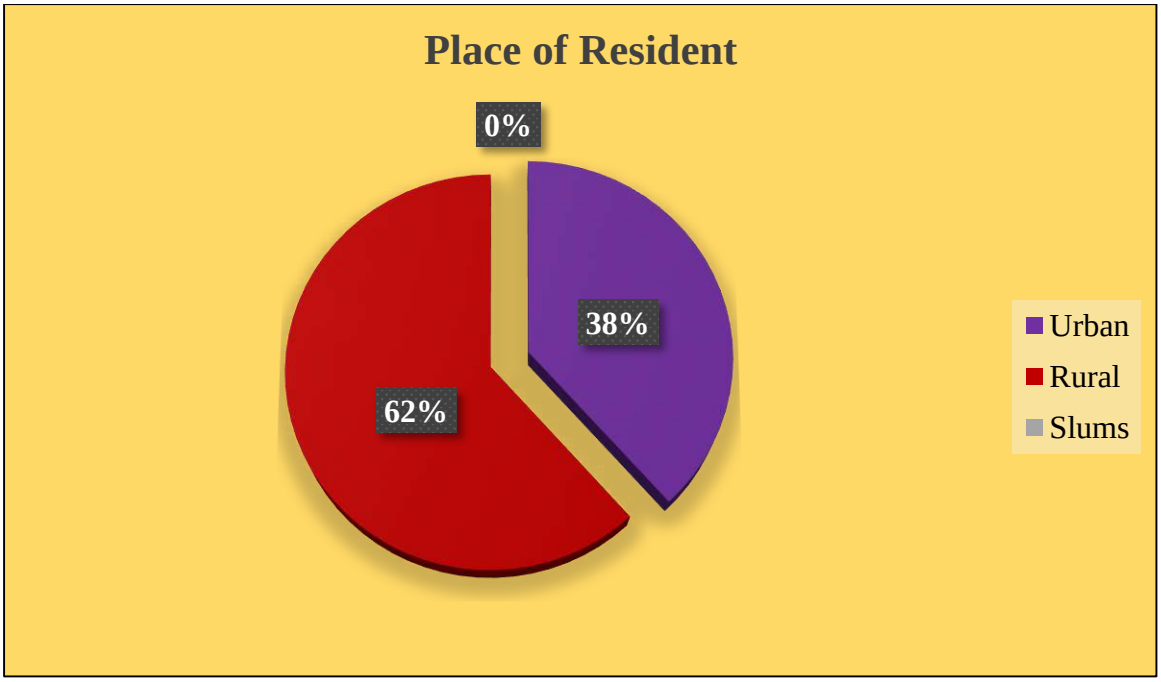


Figure 8: Graphical representation of percentage distribution of mothers of under five children according to their place of resident

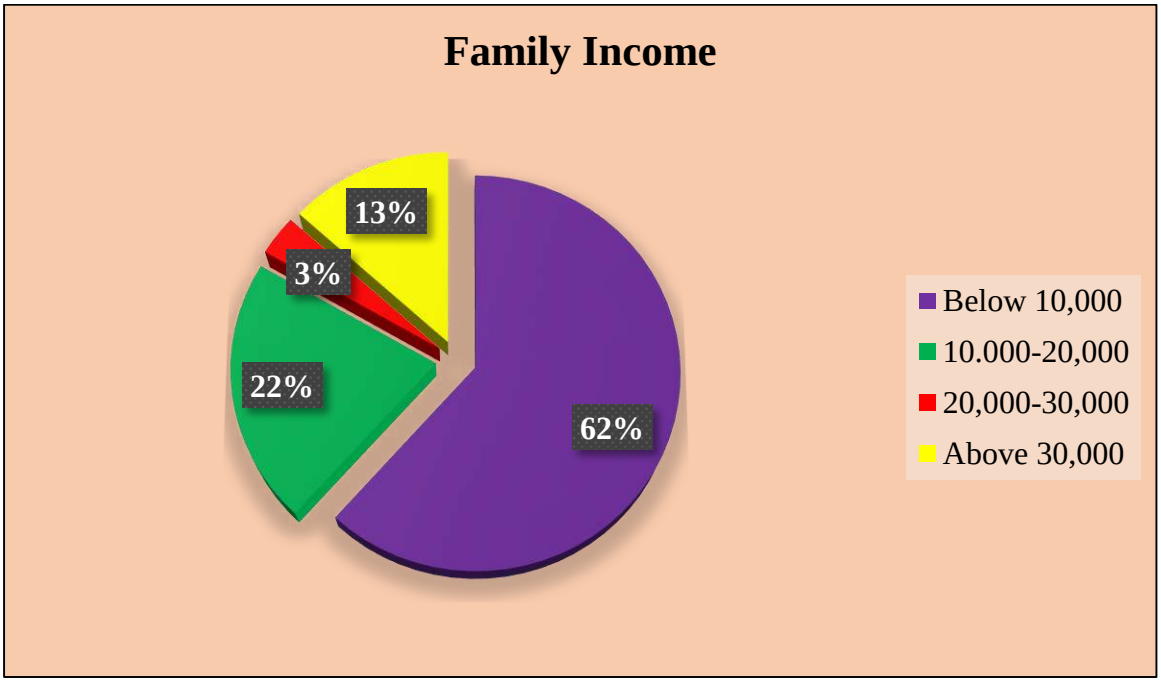


Figure 9: Graphical representation of percentage distribution of mothers of under five children according to their family income

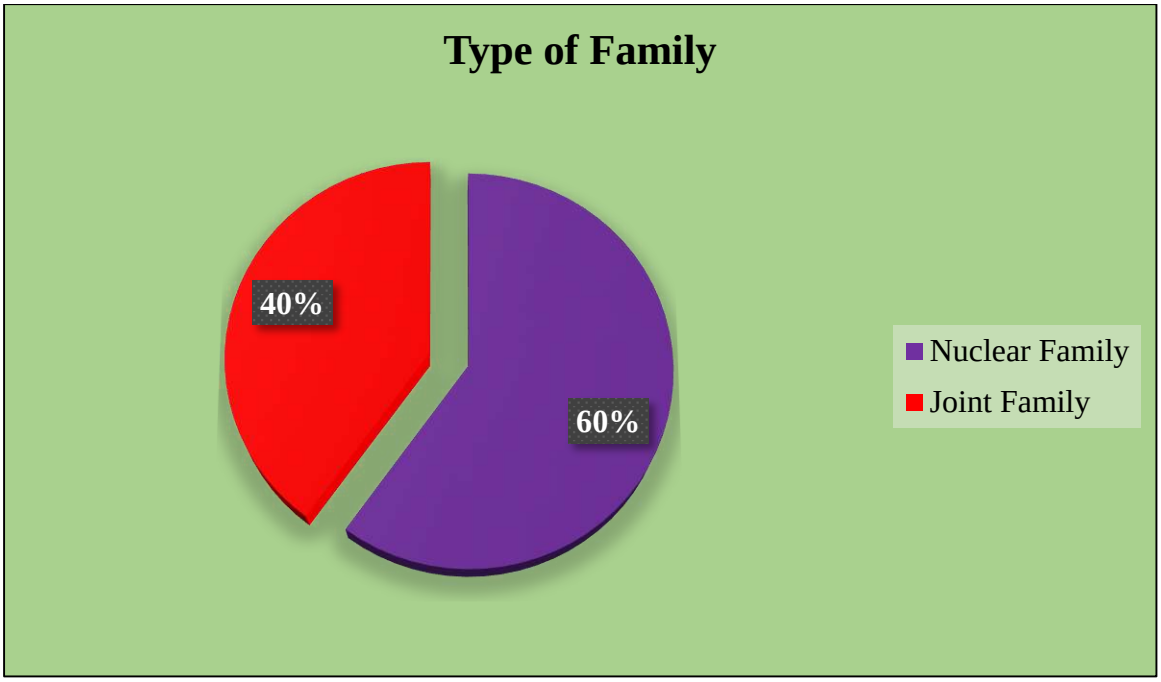


Figure 10: Graphical representation of percentage distribution of mothers of under five children according to their type of family

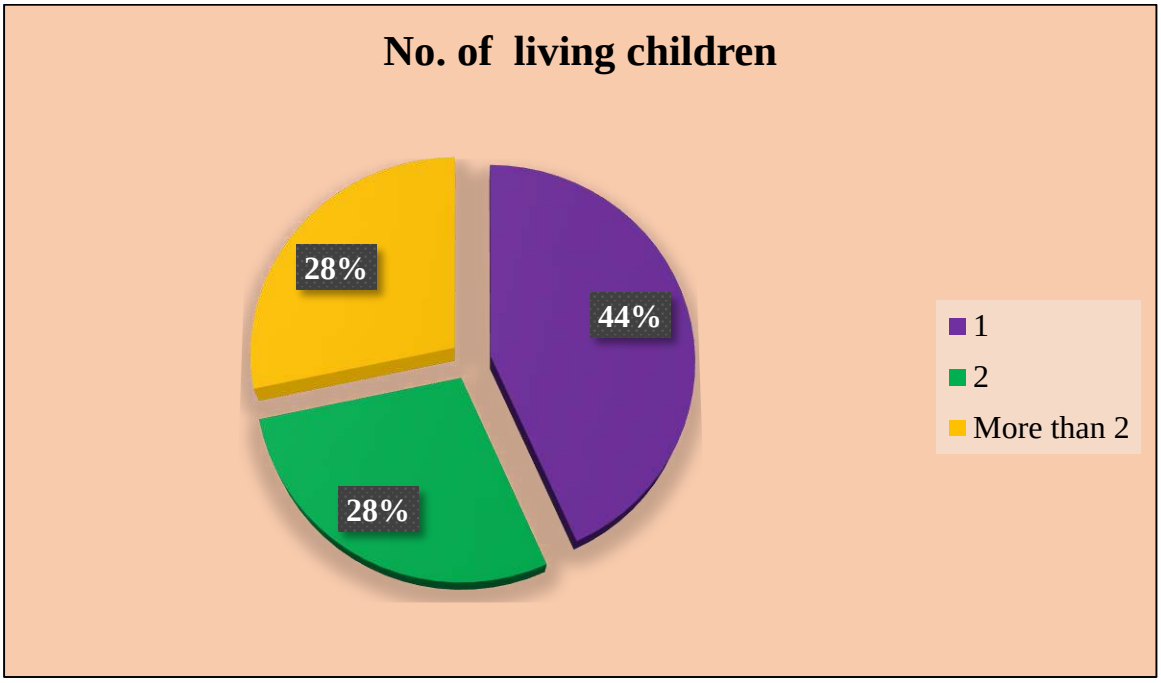


Figure 11: Graphical representation of percentage distribution of mothers of under five children according to their Number of living Children

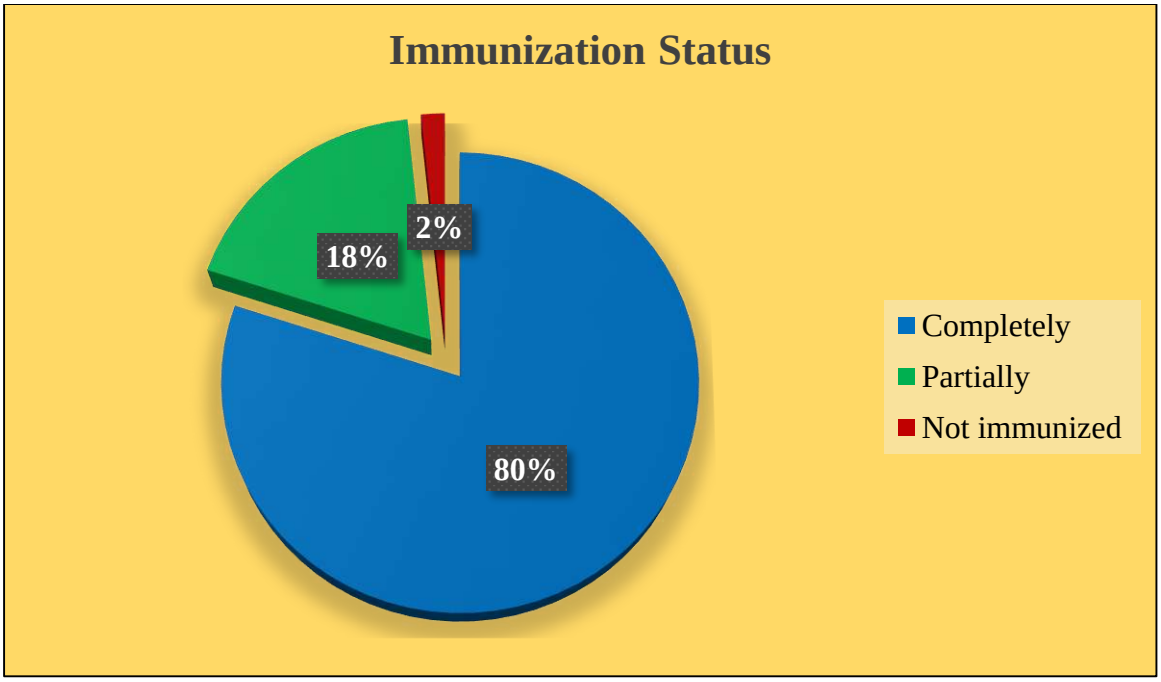


Figure 12: Graphical representation of percentage distribution of mothers of under five children according to immunization status

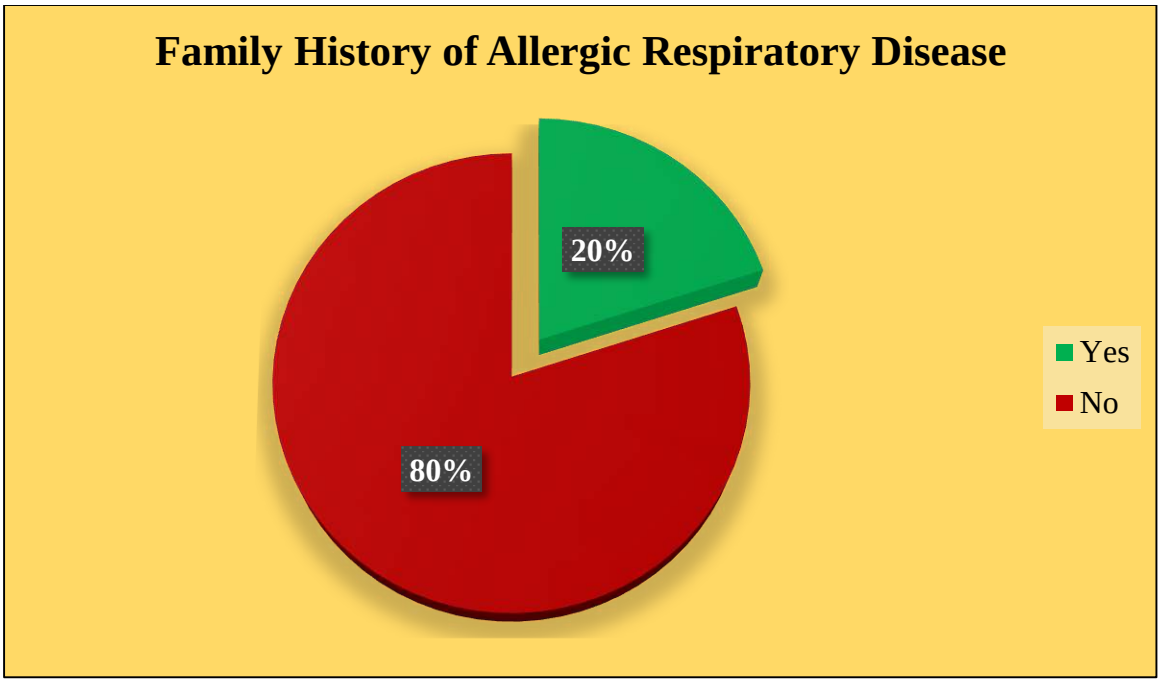


Figure 13: Graphical representation of percentage distribution of mothers of under five children according to their family history of allergic respiratory disease

SECTION II (A)

Comparison of pretest and post test score to evaluate the knowledge regarding prevention of Upper Respiratory Tract Infection among mothers of under-five children at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

Table: 4.1 Aspect wise Mean of Pre-test Knowledge of mothers of under five children regarding prevention of Upper Respiratory Tract Infection

N=60

Aspects	Pre Test				
	Max Score	**Range**	**Mean**	**SD**	**Mean%**
Anatomy & Physiology of respiratory tract	2	0-2	1.33	0.68	66.5
Cause of Upper Respiratory Tract Infection	6	0-6	2.91	1.39	48.5
Clinical features of Upper Respiratory Tract Infection	6	1-6	3.67	1.23	61.17
Home care management of Upper Respiratory Tract Infection	6	0-6	3.30	1.16	55
Preventive Measures of Upper Respiratory Tract Infection	5	0-5	3.53	1.22	70.6
Vaccination	5	0-4	0.48	0.93	9.6
Overall	**30**	**7-25**	**15.23**	**3.14**	**50.77**

The table reveals that Aspect wise mean knowledge of mothers regarding Anatomy & Physiology of respiratory tract was 66.5%. Regarding cause of Upper Respiratory Tract Infection was 48.5%. Regarding clinical features of Upper Respiratory Tract Infection was 61.17%. Regarding home care management of Upper Respiratory Tract Infection was 55%. Regarding Preventive Measures of Upper Respiratory Tract Infection was 70.6%. Regarding Vaccination was 9.6%.

The overall pretest mean score on knowledge regarding prevention of Upper Respiratory Tract Infection among mothers of under five children was 50.77% shows inadequate knowledge.

Table: 4.2 Aspect wise Mean of Post-test Knowledge of mothers of under five children regarding prevention of Upper Respiratory Tract Infection

N=60

Aspects	Post Test				
	Max Score	**Range**	**Mean**	**SD**	**Mean%**
Anatomy & Physiology of respiratory tract	2	1-2	1.88	0.32	94
Cause of Upper Respiratory Tract Infection	6	0-6	4.85	1.24	80.83
Clinical features of Upper Respiratory Tract Infection	6	2-6	4.95	0.94	82.5
Home care management of Upper Respiratory Tract Infection	6	3-6	5.25	0.87	87.5
Preventive Measures of Upper Respiratory Tract Infection	5	3-5	4.67	0.57	93.4
Vaccination	5	0-5	2.08	1.43	41.6
Overall	**30**	**17-29**	**23.68**	**2.92**	**78.93**

The table reveals that Aspect wise mean knowledge of mothers regarding Anatomy & Physiology of respiratory tract was 94%. Regarding cause of Upper Respiratory Tract Infection was 80.83%. Regarding clinical features of Upper Respiratory Tract Infection was 82.5%. Regarding home care management of Upper Respiratory Tract Infection was 87.5%. Regarding Preventive Measures of Upper Respiratory Tract Infection was 93.4%. Regarding Vaccination was 41.6%.

The overall post-test mean score on knowledge regarding prevention of Upper Respiratory Tract Infection among mothers of under five children was 78.93% shows adequate knowledge.

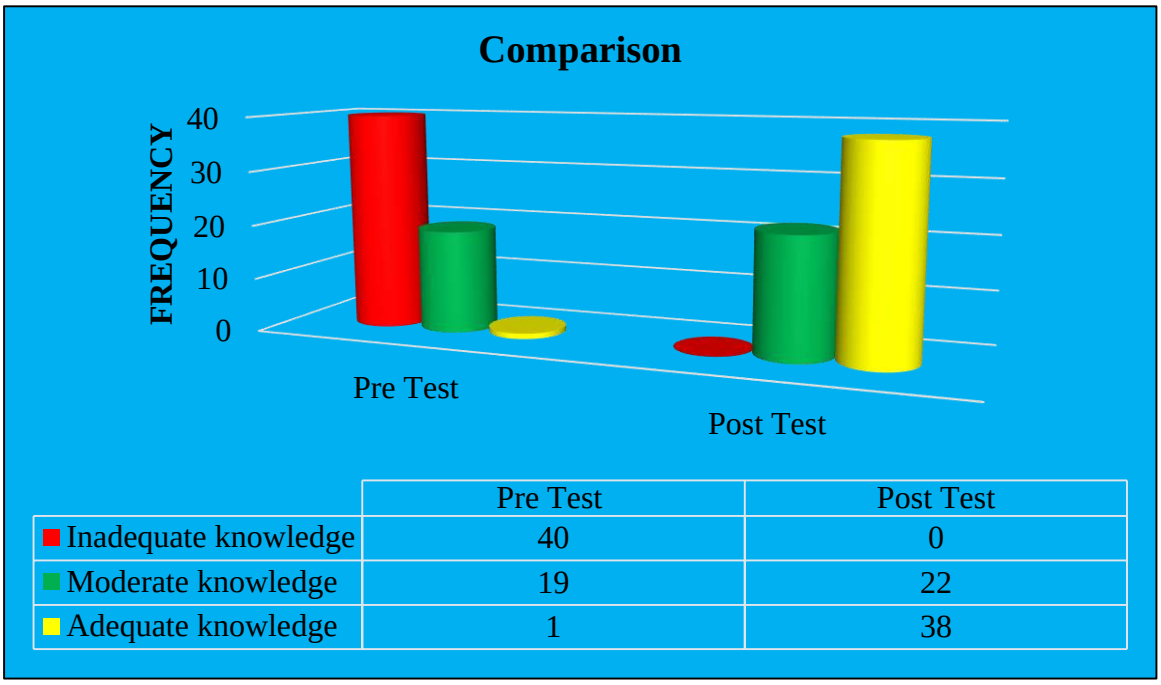
SECTION II (B)

KNOWLEDGE LEVEL OF MOTHERS REGARDING PREVENTION OF UPPER RESPIRATORY TRACT INFECTION

Table: 5 comparison of pre & post test scores to evaluate the effectiveness of structured teaching program on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

Sr. No.	Knowledge Level	Scores	Pre Test		Post Test	
			Frequency	Percentage %	Frequency	Percentage %
1	Inadequate knowledge	0 - 15	40	66.67	0	0
2	Moderate knowledge	16-23	19	31.66	22	36.67
3	Adequate knowledge	24-30	1	1.67	38	63.33
	TOTAL		60	100	60	100

The table indicates the overall knowledge level of mothers regarding prevention of upper respiratory tract infection, in pretest there were 40 number (66.67%) of mothers with inadequate knowledge, 19 number (31.66%) of mothers with moderate level of knowledge, 1 number (1.67%) of the mother with adequate knowledge where as in post-test 22 number (36.67%) of mothers had moderate knowledge, 38 numbers (63.33%) had adequate knowledge regarding prevention of upper respiratory tract infection.



	Pre Test	Post Test
Inadequate knowledge	40	0
Moderate knowledge	19	22
Adequate knowledge	1	38

Figure 14: Graphical representation of comparison of pre-test & post-test knowledge score

SECTION II (C)

Association of Pretest knowledge scores of mothers and their selected demographic variables.

Table 6 Chi-square test showing association between pre-test levels of knowledge with their selected demographic variables.

N=60

Demographic Variables	Inadequate		Moderate		Adequate		Chi Square Value	df	'p' value
	f	%	f	%	f	%			
Age (in years)									
Below 20 years	0	0	0	0	0	0			
21-25	17	28.33	10	16.66	0	0	5.82	4	9.49 NS
26-30	16	26.67	4	6.67	0	0			
Above 30	7	11.67	5	8.33	1	1.67			
Educational Status									
Illiterate	12	20	1	1.67	0	0			
Primary Education	9	15	0	0	0	0			
Higher Primary	6	10	0	0	0	0	25.85	10	18.31 S
Higher Secondary	2	3.33	2	3.33	0	0			
Senior Secondary	7	11.67	5	8.33	0	0			
Degree or others	4	6.67	11	18.33	1	1.67			
Occupational Status									
Housewife	37	61.67	17	28.33	0	0	21.64	4	9.49 S
Working	2	3.33	0	0	1	1.67			
Business	1	1.67	2	3.33	0	0			

Place of Resident									
Urban	13	21.67	9	15	1	1.67			5.99
Rural	27	45	10	16.66	0	0	2.84	2	NS
Slums	0	0	0	0	0	0			
Family Income									
Below 10,000	26	43.33	11	18.33	0	0			12.59
10,000-20,000	9	15	3	5	1	1.67	5.52	6	NS
20,000-30,000	1	1.67	1	1.66	0	0			
Above 30,000	4	6.67	4	6.67	0	0			
Type of family									
Nuclear family	24	40	12	20	0	0	1.58	2	5.99
Joint family	16	26.66	7	11.67	1	1.67			NS
No. of living children									
1	16	26.67	10	16.66	0	0	3.47	4	9.49
2	12	20	4	6.67	1	1.67			NS
More than 2	12	20	5	8.33	0	0			
Immunization Status									
Completely	31	51.67	16	26.66	1	1.67	3.48	4	9.49
Partially	9	15	2	3.33	0	0			NS
Not immunized	0	0	1	1.67	0	0			
Family history of allergic respiratory disease									
Yes	7	11.66	4	6.67	1	1.67	4.17	2	5.99
No	33	55	15	25	0	0			NS

Note: NS-Not Significant, at $p<0.05$ level.

S-Significant, at $p>0.05$ level.

The data presented in the table 6 shows that there was significant and non-significant statistical association between the levels of pre-test knowledge score with their selected socio-demographic variables among mothers of under five children at 0.05 level of significance.

The data presented in the table 6 shows that there was no significant statistical association between the levels of pre-test knowledge score with their selected socio-demographic variables such as age, place of resident, family income, type of family, No. of living children, immunization status, family history of allergic respiratory disease among mothers of under five children at 0.05 level of significance.

The data presented in the table 6 shows that there was significant statistical association found between the levels of pre-test knowledge score with their selected socio-demographic variables such as educational status and occupational status among mothers of under five children at 0.05 level of significance.

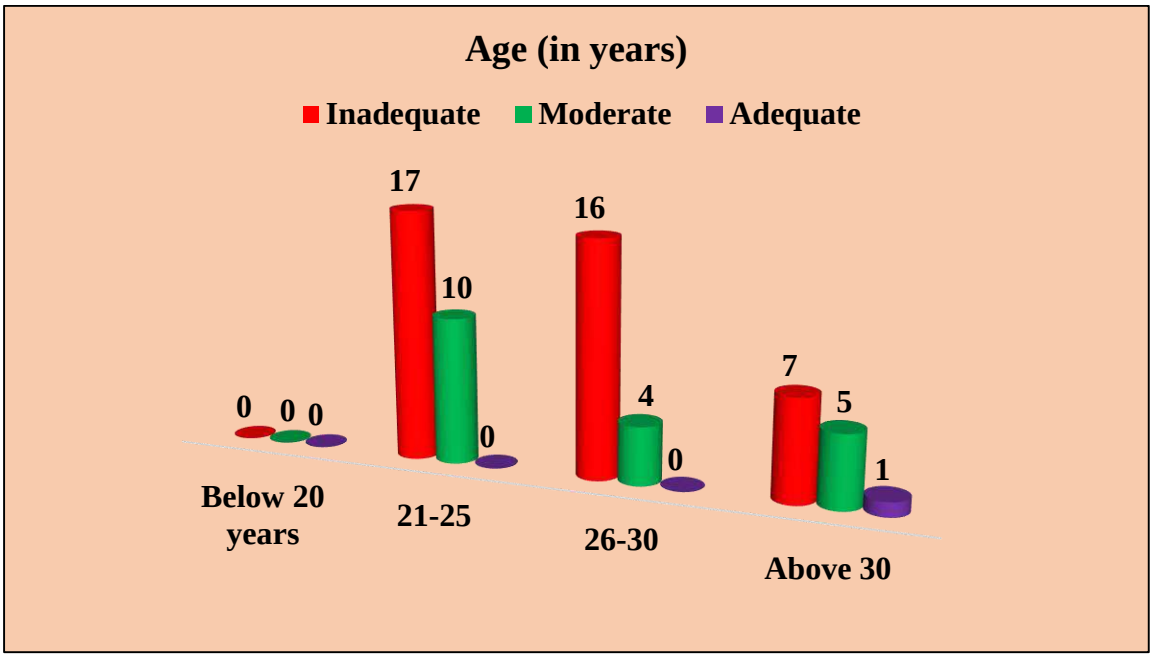


Figure 15: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with age

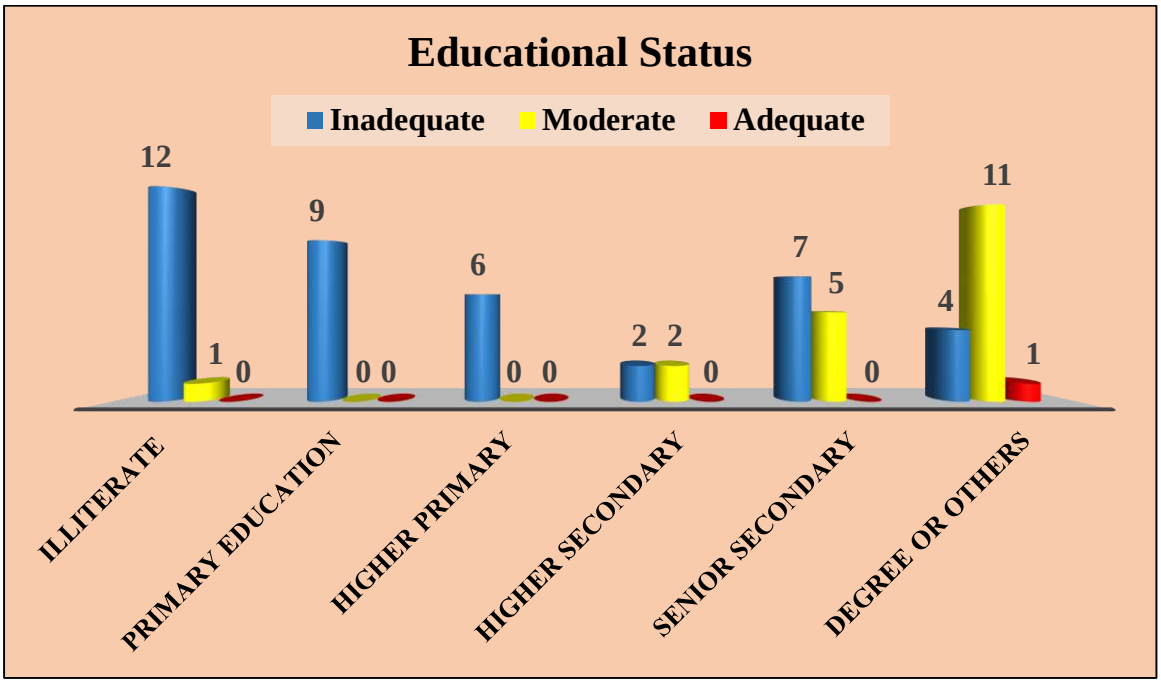


Figure 16: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with educational status

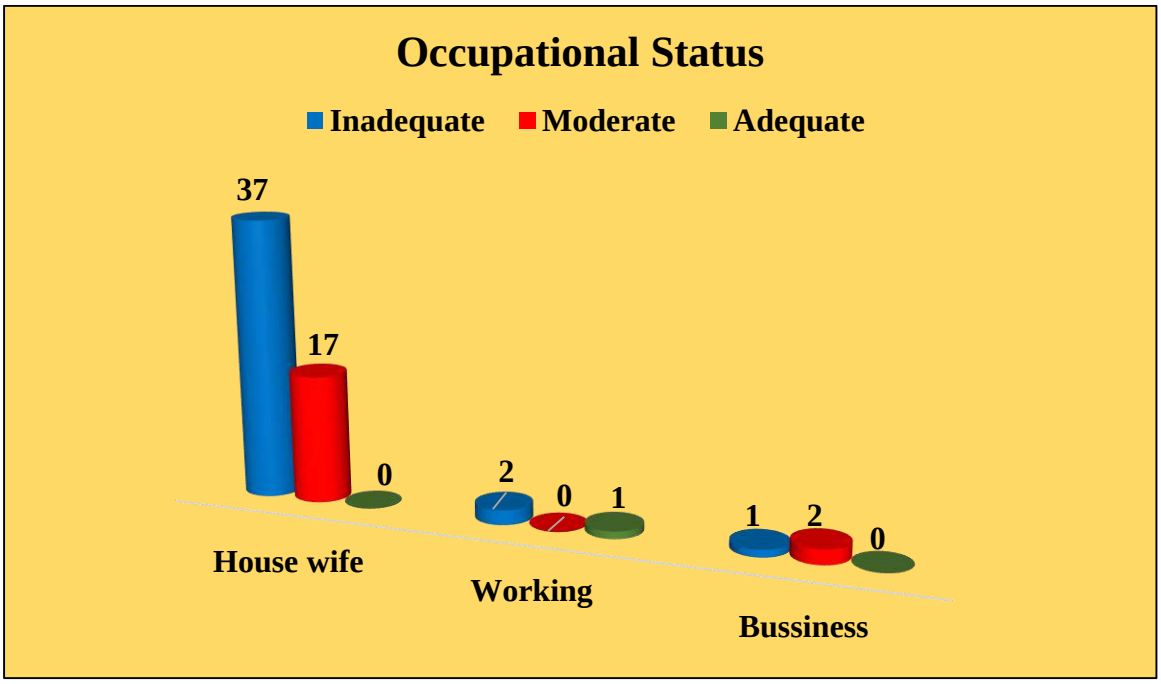


Figure 17: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with occupational status

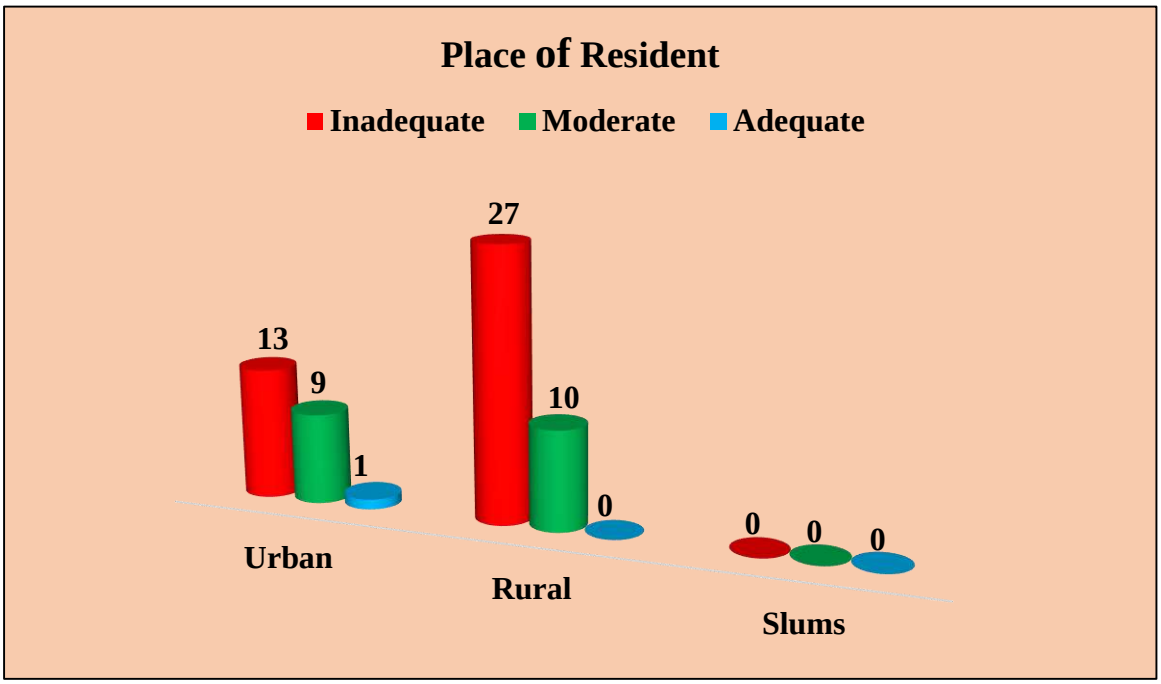


Figure 18: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with place of resident

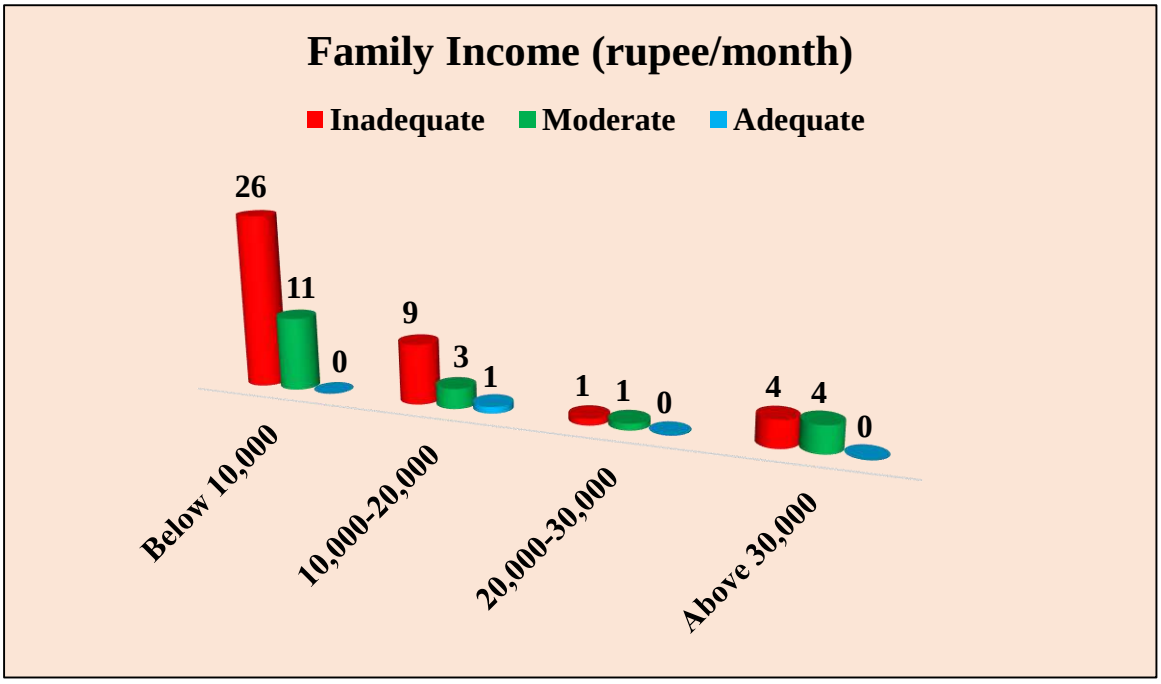


Figure 19: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with family income (rupee/month)

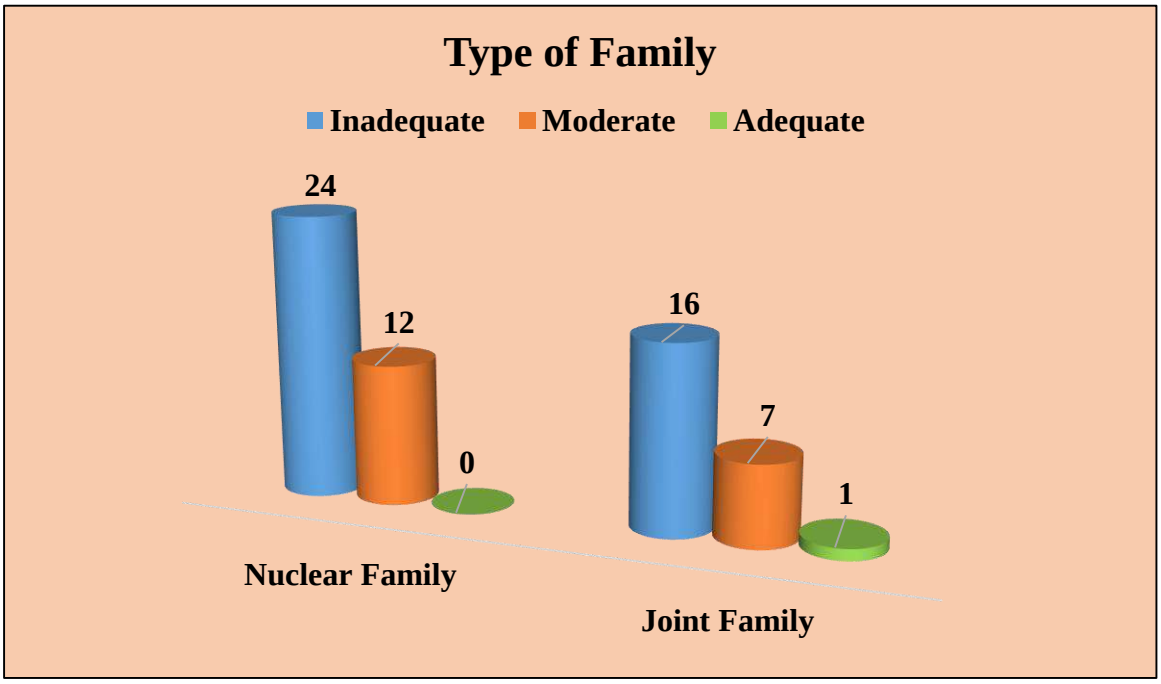


Figure 20: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with type of family

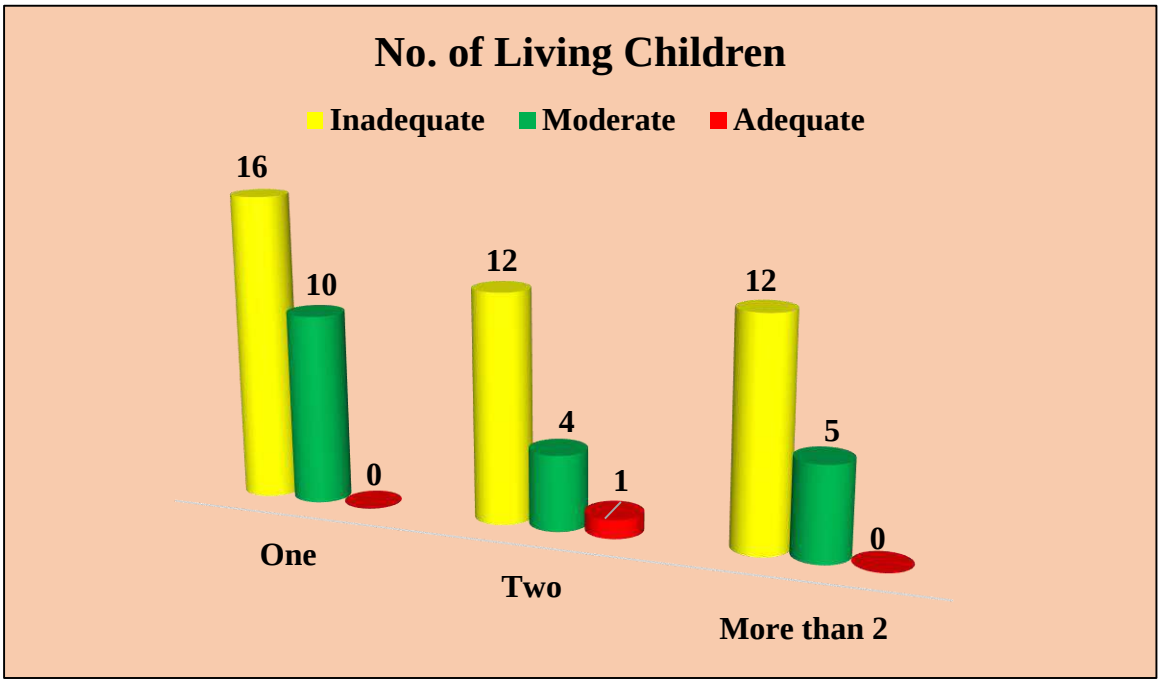


Figure 21: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with No. of living children

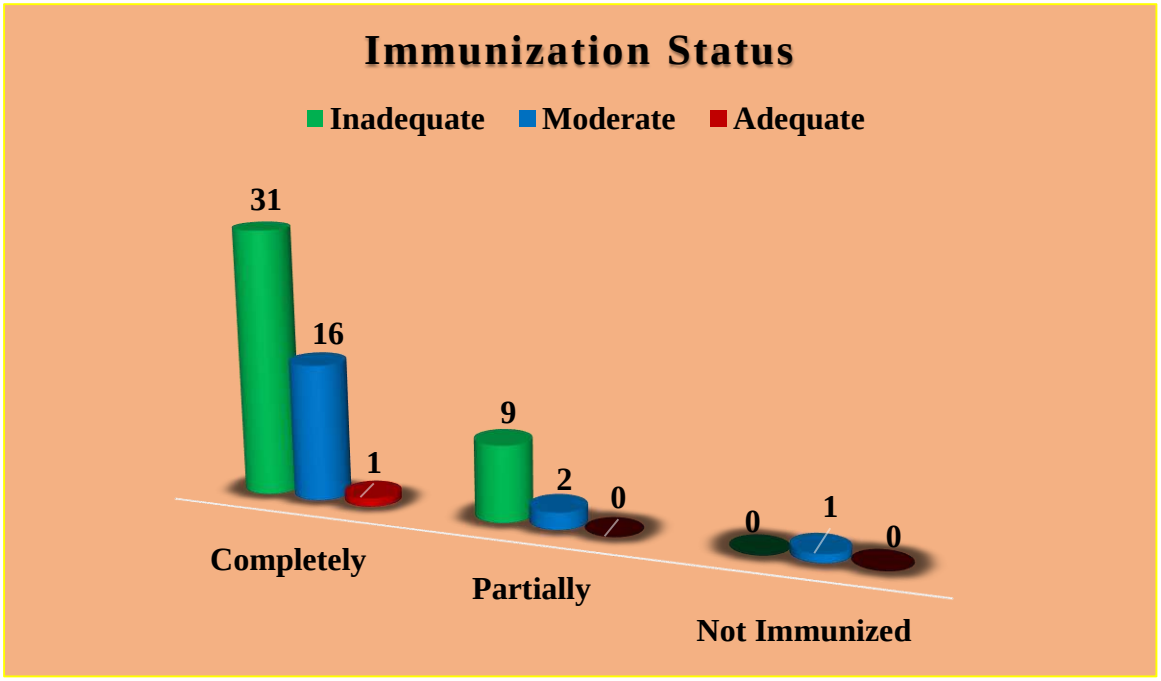


Figure 22: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with immunization status

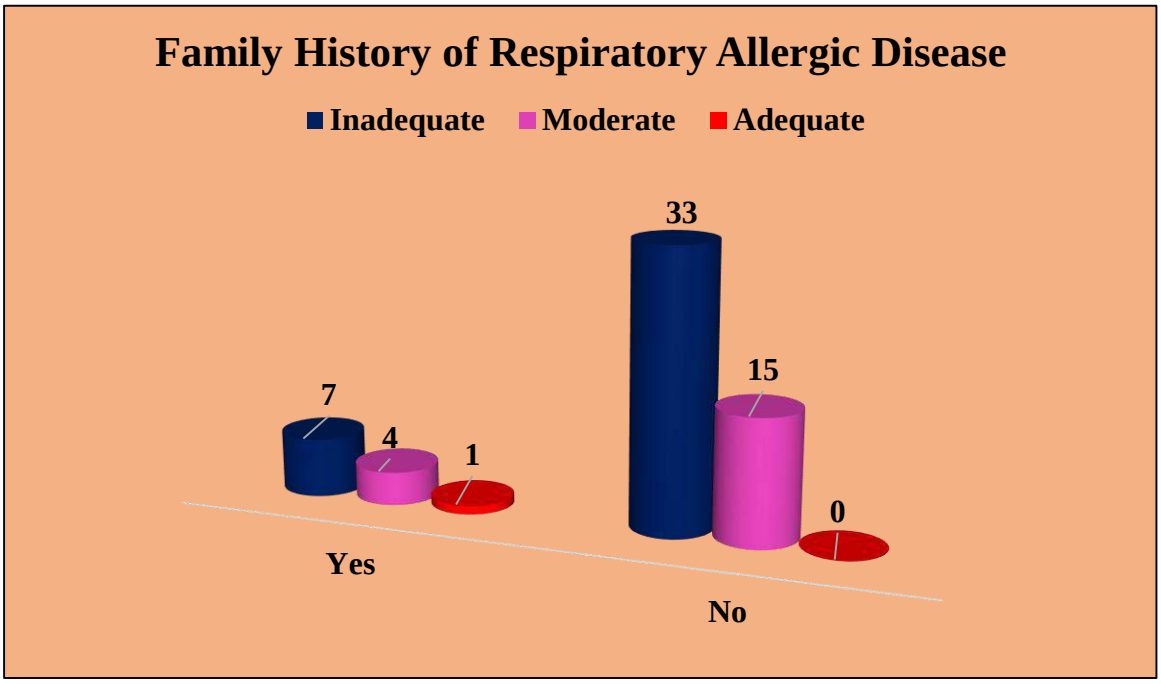


Figure 23: Association of knowledge regarding prevention of upper respiratory tract infection among mothers of under five children with family history of respiratory allergic disease

SECTION II (D)

Table: 7 Paired "t"-test values to evaluate the effectiveness of structured teaching program on knowledge regarding prevention of upper respiratory tract infection among mothers of under-five children

N=60

Aspects	Pre Test		Post Test		Mean Difference	't' value	p-value
	Mean	SD	Mean	SD			
Anatomy & Physiology of respiratory tract	1.33	0.68	1.88	0.32	0.55	6.31	**S**
Cause of Upper Respiratory Tract Infection	2.91	1.39	4.85	1.24	1.94	12.57	**S**
Clinical features of Upper Respiratory Tract Infection	3.67	1.23	4.95	0.94	1.28	7.20	**S**
Home care management of Upper Respiratory Tract Infection	3.30	1.16	5.25	0.87	1.95	12.59	**S**
Preventive Measures of Upper Respiratory Tract Infection	3.53	1.22	4.67	0.57	1.14	7.31	**S**
Vaccination	0.48	0.93	2.08	1.43	1.6	8.74	**S**
Overall	**15.23**	**3.14**	**23.68**	**2.92**	**8.45**	**24.625**	**S**

Note: S – Significant, at p>0.05 level, df = 59

The above table reveals that the paired‘t’ value shows that there was significant difference between pretest and post-test knowledge score (‘t’=24.625) at 0.05 level of significance.

It indicates the effectiveness of structured teaching program in enhance the knowledge regarding prevention of upper respiratory tract infection among mothers of under five children.

Table: 8 Overall Mean percentage Knowledge score of pretest & post-test knowledge score

N=60

Aspects	Range Score	Mean Score	Knowledge Mean%	Score SD	Paired ‘t’ test	Df
Pre test	7-25	15.23	50.77	3.14	**24.625**	**59**
Post-test	17-29	23.68	78.93	2.92		
Enhancement		8.45	28.17	2.66		

***Significant at 5% level (<p 0.05)**

The table indicates the overall mean percentage knowledge of pre-test and post-test regarding prevention of upper respiratory tract infection. The post-test knowledge mean percentage was found higher (knowledge mean percentage was 78.93% with SD of 2.92 when compared with pre-test knowledge mean percentage which was 50.77% with SD of 3.14). Knowledge mean percentage enhancement was 28.17% with SD of 2.66. The statistical paired ‘t’ test implies that the difference in the pre-test and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired ‘t’ test value of 24.625. There exists a statistical significance in the enhancement of level of knowledge score indicating the positive impact of structured teaching program. Hence the stated research hypothesis **H_1 is accepted.**

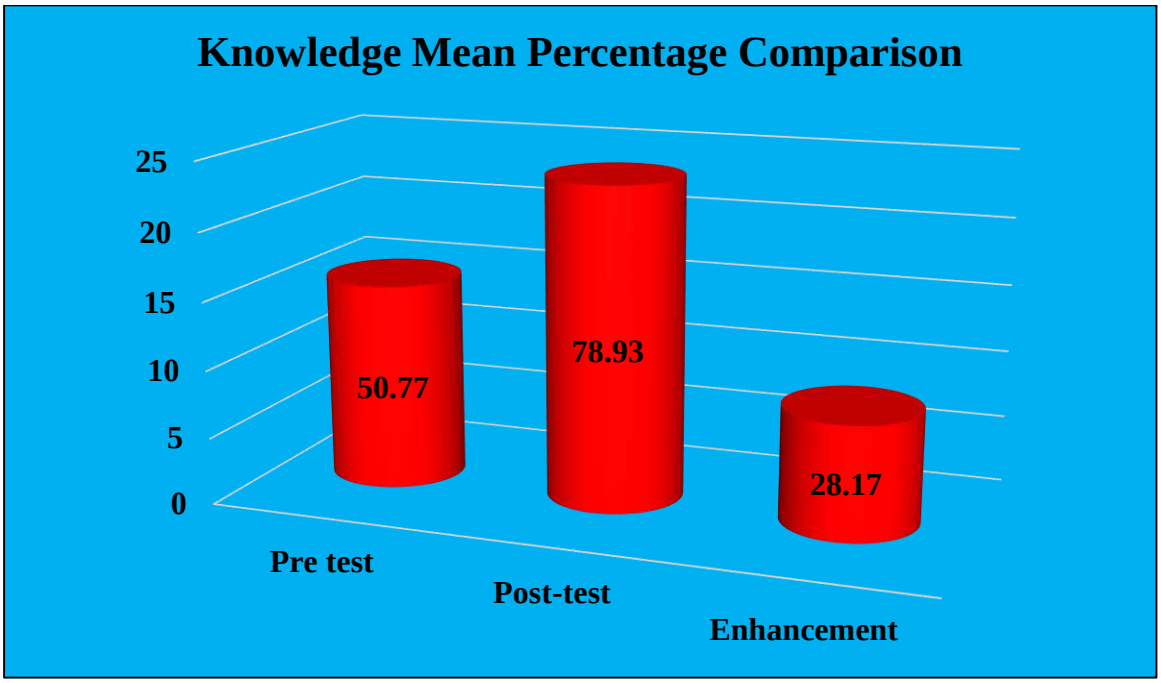


Figure 24: Mean Score Comparison

Major findings

Sample characteristics

It was found that out of 60 study sample,

- Majority of mothers of under five children were in age group 21-25 years.
- Majority of mothers of under five children were educated at degree level.
- Majority of mothers were housewife.
- Majority of them were live in rural area.
- Majority of mothers of under five children were belongs to below 10,000 rupee/month family income.
- Majority of them were belonging to nuclear family.
- Maximum of them had one child.
- Most of them had given vaccination to their children.
- Majority of them have no family history of any allergic respiratory disease.

Objective 1: To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five

children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.

In the study, majority 27 mothers (45%) of under five children were in the age group of 21-25 years, majority 16 mothers (26.67%) of under five children were educated at degree level, majority, 54 mothers (90%) mothers were housewife, majority 37 mothers (61.67%) were living in rural area, majority 37 mothers (61.67%) were belonging to below 10,000 rupee/month, majority 36 mothers (60%) were living in nuclear family, majority 26 mothers (43.33%) were having one children, majority 48 mothers (80%) were given vaccines completely to their child, majority 48 mothers (80%) have no family history of any respiratory disease in their family.

Objective 2: To evaluate the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

In this study the overall knowledge level of mothers regarding prevention of upper respiratory tract infection, in pretest there were 40 number (66.67%) of the mothers with inadequate knowledge, 19 number (31.66%) of the mothers with the moderate level of knowledge, 1 numbers (1.67%) of mother with adequate knowledge where as in post-test 22 number (36.67%) of mothers had moderate knowledge, 38 numbers (63.33%) had adequate knowledge regarding prevention of upper respiratory tract infection.

Objective 3: To determine the association between the levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

In the study, the findings showed that during pretest the knowledge of the mothers of under five children regarding prevention of upper respiratory tract infection was inadequate where as in post-test score the knowledge was adequate. The mean difference between pre-test and post-test of the knowledge of mothers of under five children was 8.45

CHAPTER V

DISCUSSION

The present study focuses to assess the knowledge of mothers regarding prevention of upper respiratory tract infection. The discussion about the study findings are presented in this chapter based on the objectives and related literature. This chapter deals with the discussion of the data analyzed based on the objectives of the study. After completing the study SPSS version 20 was used for analysis.

The findings of the study are discussed under the following headings:

- To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among the mothers of under five children.
- To evaluate the effectiveness of Structured Teaching Program regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children.
- To determine the association between levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

First objective

To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among the Mothers of under five children.

N Shiva, Baby Nayak, P V Nisha (2016), conducted **a Cross sectional study** to assess the knowledge and attitude among the mothers of under five children with URTI in pediatric outpatient departments of selected secondary care hospital of Udupi, Karnataka. The data have been collected from 154 mothers by using structured knowledge questionnaire for assessing mother's knowledge and 5 point Likert scale for assessing mother's attitude towards the Upper respiratory tract infection (URTI). Convenient sampling technique was used for sample selection. Descriptive and inferential statistics were used for data analysis. Majority 63 (40.9%) of the sample had

average and 62 (40.2%) had good knowledge, 29 (18.8%) had poor knowledge regarding URTI. Majority of the sample 129 (83.80%) had favorable attitude and 25 (16.20%) samples had unfavorable attitude towards prevention of URTI.[55]

The findings highlight that, the nurses and health care providers can play a significant role in educating the mothers regarding importance of seeking medical care and prevention of URTI in under five children.

Second objective

To evaluate the effectiveness of Structured Teaching Program regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children.

Jophin Joseph, Jyothy George (2014), conducted **a quasi-experimental study** to assess the Effectiveness of Structured Teaching Program Regarding Knowledge on Prevention of Upper Respiratory Tract Infection among Mothers of Toddler in Selected Hospital, Bangalore. Total 60 mothers of toddler were included by using simple random sampling. Questionnaire was used to collect data from the subjects and the obtained data was analyzed using descriptive, inferential statistics and interpreted in terms of objectives of the study. In the pre-test the subjects had inadequate knowledge with a mean of 29.25% and standard deviation of 2.26 where as in posttest there was a significant mean knowledge gain of 77.77% and standard deviation of 1.68. The present study proved that the structured teaching program was significantly effective in improving the knowledge of mothers of toddler on prevention of upper respiratory tract infection. Hence the study concluded that improve the knowledge on management of upper respiratory tract infection helps to provide care, to safeguard the children and to prevent further complication.[56]

Third objective

To determine the association between levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

Dr. Sikandar Kumar (2014), conducted **a pre-experimental study** to assess and improve the knowledge among mothers of under five children regarding upper respiratory tract infection. 30 samples were selected from the Bhubaneswar. The subjects who were between 20-40 years having children below age of 5 years were selected by purposive sampling technique. The closed ended questionnaire knowledge regarding URTI were administered. Information related to prevention and management of URTI was given through planned teaching program. The findings showed that during pretest the knowledge of the subjects regarding URTI was inadequate where as in post-test the score the knowledge was adequate. There was no significant difference (p=0.05) between the post test score and their selected demographic variable. Finding reveals that most of the mothers were in the **age** group of between 30-35 years and most of them have the **educational qualification** of secondary level. Most of them were **Hindu religion** and majority of them were **housewife**. Majority of them were belongs from **nuclear family** all of them line in **rural area** and majority of them having the **monthly income** of 1001-5,000. In pre-test, overall level of knowledge on management of URTI among the mothers were 40%. Where as in post-test knowledge score for the mother were 87%.[57]

Hence, it depicts that intervention was effective for the gaining of the knowledge regarding management of URTI among the mother of under five children.

CHAPTER VI

SUMMARY

This chapter deals with the summary of the study and its major findings. The study was to assess the knowledge of mothers of under five children regarding prevention of upper respiratory tract infection at Era's Lucknow Medical College Lucknow, Uttar Pradesh.

The objectives of study were as follows:

- To assess the pre and post interventional level of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among Mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.
- To evaluate the effectiveness of Structured Teaching Program regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.
- To determine the association between levels of knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children with selected demographic variables.

Review of literature of related studies enabled the researcher to collect related and relevant information to support the study, design the methodology, develop the conceptual framework and in the development of tools.

King's Imogen Theory was adopted as conceptual framework for the study. The research design was pre experimental research design. The research tool was structured interview schedule containing questions to assess the demographic data, knowledge about prevention of upper respiratory tract infection in under five children.

The structured interview schedule was prepared in 2 parts, part I contains data of 9 items related to demographic variables of the respondents.

Part II consists of 30 items to assess the knowledge, each question is provided with 4 options of answer. In this the correct response carried one score resulting with maximum score of 30.

Content validity of the structured interview schedule was established by 10 experts. A pilot study was conducted between 03/06/2019 to 10/06/2019. The reliability of the tool was established by test retest method developed by Spearman's Brown Prophecy Formula. The reliability coefficient was found to be 0.83, hence the tool was found to be reliable.

Purposive sampling technique was used to select the samples. The sample consists of 60 mothers of under five children and data was collected at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

Major Findings

- Majority 27 mothers (45%) of under five children in the age group of 21-25 years.
- Majority 16 mothers (26.67%) were educated up to degree level.
- Majority 54 mothers (90%) mothers were housewife.
- Majority 37 mothers (61.67%) were from rural area.
- Majority 37 mothers (61.67%) were belonging to below 10,000 rupee/month family income.
- Majority 36 mothers (60%) were from nuclear family background.
- Majority 26 mothers (43.33%) were having one children.
- Majority 48 mothers (80%) were given vaccines completely to their child.
- Majority 48 mothers (80%) have no family history of any respiratory disease in their family.

Major Findings related to Knowledge Aspect of Upper Respiratory Tract Infection

In Pretest Aspect wise mean knowledge of mothers regarding Anatomy & Physiology of respiratory tract was 66.5%. Regarding cause of Upper Respiratory Tract Infection was 48.5%. Regarding clinical features of Upper Respiratory Tract Infection was 61.17%. Regarding home care management of Upper Respiratory Tract Infection was 55%. Regarding Preventive Measures of Upper Respiratory Tract Infection was 70.6%. Regarding Vaccination was 9.6%.

The overall pretest mean score on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children was 50.77% shows inadequate knowledge.

In Post-test Aspect wise mean knowledge of mothers regarding Anatomy & Physiology of respiratory tract was 94%. Regarding cause of Upper Respiratory Tract Infection was 80.83%. Regarding clinical features of Upper Respiratory Tract Infection was 82.5%. Regarding home care management of Upper Respiratory Tract Infection was 87.5%. Regarding Preventive Measures of Upper Respiratory Tract Infection was 93.4%. Regarding Vaccination was 41.6%.

The overall post-test mean score on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children was 78.93% shows adequate knowledge.

The overall knowledge level of mothers regarding prevention of upper respiratory tract infection, in pretest there were 40 number (66.67%) of mothers with inadequate knowledge, 19 number (31.66%) of mothers with the moderate level of knowledge, 1 number (1.67%) of mother with adequate knowledge where as in post-test 22 number (36.67%) of mothers had moderate knowledge, 38 numbers (63.33%) had adequate knowledge regarding prevention of upper respiratory tract infection.

The overall mean percentage knowledge of pre-test and post-test on knowledge regarding prevention of upper respiratory tract infection. The post-test knowledge mean percentage was found higher (knowledge mean percentage was 78.93% with SD of 2.92 when compared with pre-test mean percentage knowledge mean percentage which was 50.77% with SD of 3.14). Knowledge mean percentage enhancement was 28.17% with SD of 2.66. The statistical paired 't' test implies that the difference in the pre-test and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired 't' test value of 24.625. There exists a statistical significance in the enhancement of level of knowledge score indicating the positive impact of structured teaching program. Hence the stated research hypothesis **H_1 is accepted.**

CONCLUSION

The primary aim of the present study was to evaluate the effectiveness of Structured Teaching Program on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P. A Pre Experimental one group pre-test post-test design with evaluative approach was used. A Non-Probability Purposive sampling technique was used for selecting 60 samples. The data was collected from 60 sample by conducting pre-test. A Structured Interview Schedule was used to assess the knowledge of mothers of under five children regarding prevention of upper respiratory tract infection.

The purpose of the study was to assess the knowledge of mothers of under five children regarding prevention of upper respiratory tract infection.

The conclusion drawn on the basis of the findings of the study includes-

1. Overall pre-test mean score on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children was 50.77% shows inadequate knowledge, which suggested the need for teaching program for mothers of under five children regarding prevention of upper respiratory tract infection.

2. Overall post-test mean score on knowledge regarding prevention of upper respiratory tract infection among mothers of under five children was 78.93% shows adequate knowledge.
3. The calculated paired‘t’ values for knowledge scores were statistically highly significant at 0.05 level of significant.
4. There was no significant statistical association between the levels of pre-test knowledge score among mothers of under five children and their selected socio-demographic variables such as age, place of resident, family income, type of family, No. of living children, immunization status, family history of allergic respiratory disease at 0.05 level of significance.
5. There was significant statistical association found between the levels of pre-test knowledge score and their selected socio-demographic variables such as educational status and occupational status among mothers of under five children at 0.05 level of significance.

NURSING IMPLICATION

The findings of the study have some important implications for nursing practices, nursing education, nursing administration as well as further nursing research.

1. **Nursing Practice:**
    - Respiratory tract infection is a national problem in our country and nurses play an important role in controlling respiratory tract infection and skilful management and treatment of respiratory tract infection during their hospital and community services. This study would indirectly help to encourage nurses to assess the knowledge of mothers of under five children on prevention and management of respiratory tract infection to prevent from any complications of ARI.
    - This study also helps staff nurses in providing counselling to person in the short time available in the hospital.

- Health education is one of the nursing interventions and nurse's responsibility.
- This study emphasizes that nurses have to impart health education among mothers of under five children.

2. Nursing Education:

- This study helps nurses in gaining knowledge about knowledge of mothers of under five children regarding prevention of upper respiratory tract infection.
- This study emphasizes the significance of health education to mothers of under five children regarding respiratory tract infection, causes of respiratory tract infection, recognition of signs & symptoms, home remedies and preventive measures of respiratory tract infection.

3. Nursing Administration:

- The nurse administration have pivotal responsibility to provide the nurses with substantive materials and training to motivate them to create awareness by structured teaching program regarding respiratory tract infection, and procedures related to the protection of health issues of under five children.
- Hospital administration authorities should take an initiation to place nursing personnel for educating mothers or family members on prevention of respiratory tract infection.

4. Nursing Research:

- Based on the findings further research can be conducted. This study revealed that there is a depth of knowledge among mothers of under five children which needs further research to explore it.
- A qualitative research study may be conducted regarding the Quality of Life of under five children who are at the high risk to develop respiratory tract infection.

LIMITATIONS

This study is limited to,

- Generalization of the findings could not be made due to small sample size, limited area of setting and linguistic criterion.
- The tool used in this study measured only the particular domain of the mothers of under five children regarding prevention of upper respiratory tract infection.

RECOMMENDATION

- A similar study may be conducted on a larger sample for order generalization.
- A study can done to evaluate the effectiveness of the structured teaching program regarding prevention and management of respiratory tract infection.
- A similar study can be conducted by using other educational methods like video assisted teaching, information booklet, demonstration etc.
- An exploratory study can be carried out to identify various factors responsible for lack of knowledge and practice of mothers of under five children regarding prevention and management of respiratory tract infection.
- A similar study can be conducted to assess knowledge of mothers of under five children on any other illness like diarrhea, malnutrition etc.

REFERENCES

1. Children are our future. Bernard van Leer Foundation Submission to the United Nations Committee on the Rights of the Child Day of Discussion: Implementing Child Rights in Early Childhood. [Online] 2004 Jul. [cited on 2015 Jul 25]. **Available on URL:** http://www.bernardvanleer.org/files/crc/1.B%20Peter_Laugharn_%28BVLF%29.pdf.
2. Singh GR. Impact of Health Education on prevention practices of ARI among mothers living in urban slum-Bangalore. IOSR Journal of Nursing and Health Sciences. 2015 Jan-Feb; 4(1) I: 27-31.
3. Siswanto Bunyan, Chompikul J. Nakhon Pathom General Hospital Thailand. Journal of public Health and Development 2007 vol 2. No 2.
4. Bashour HN, Roger HW, Thomas F. a community - based study of acute respiratory infection among preschool children in Syria. Journal of tropical pediatrics. 1994; 40:207-211.
5. Importance of respiratory viruses in acute otitis media. April 2003. Retrieved 1 December, 2004, from http: //www. Google. Internet / / Tips for better browsing / CMR. Clinical microbiology reviews
6. Mary T. Caserta. The merck manual of medical information, 2nd Edition. 2007 **Available on URL:** http://www.merckmanuals.com/home/print/sec23/ch273/ch273i.htm
7. WHO, Acute Respiratory Infections (Update September 2009), **Available on URL:** http://www.who.int/vaccine_research/diseases/ari/en/index.html
8. http://www.merckmanuals.com/home/childrens_health_issues/viral_infections_in_infants_and_children/respiratory_tract_infections_in_children.html.
9. Paulette D, Roll ant, Joyce Hamlin. Pediatric nursing. St. Louis; Mosby publishers; 1996. P - 153-160
10. Terrikelle. Essential of paediatric nursing. 1st Edition. New York; Lippincott publishers; 2009. P - 566-73

11. Dorothy Marlow, Barbara A. Redding. Textbook of paediatric nursing. 1st Edition. New delhi; Elsevier publishers; 2006. P - 721-35

12. Piyush Gupta and O.P Ghai. Essentials of pediatric nursing. 6th Edition. New delhi; CBS publishers; 2005. P - 344-48

13. I Clement. Pediatric nursing. 1st Edition. New delhi; AP Jain & co-publishers; 2006. P - 97-107

14. Thomas Cherian, "The Lingering Problem of Acute respiratory Infection, "The National Medical Journal of India, 2003

15. Datta Parul. Pediatric nursing. 4st edition. New delhi; Jaypee brothers medical publishers (p) ltd; 2018. P - 271-2.

16. Jessie M. Chellappa. Pediatric nursing. 1st Edition. Bangalore; Gajanana book publishers & distributers; 2002. P-139-48

17. Fred M, Heureting and Christopher king. Textbook of pediatric emergency procedure. Maryland; Williams & Wilkins company publishers; 1997. P - 621-50

18. Simiyu DE, Wafula EM, Nduati RW. Mothers Knowledge Attitude and Practices regarding acute respiratory infections in children's in Baringo District Kenya East Afr Med J 2003 June; 80(6) Department of Paediatrics and Child Health, College of Health Sciences, University of Nairobi, P.O. Box19676 Nairobi, Kenya pub med 303-7.

19. Sharma K. Suresh. Nursing research & statistics. 2nd Edition. New delhi; Elsevier publishers; 2017

20. Simiyu DE, Wafula EM, Nduati RW. Mother's knowledge, attitudes & Practices regarding acute respiratory infections in children in Baringo District, Kenya, East Afr Med Journal. 2003 Jun; 80(6): 303-7. 18. Polit DF, Beck CT. Nursing research: Principles and methods. 7th ed. Philadelphia: Lippincott Williams and Wilkins; 2004. p.15, 28, 29, 88, 115, 162, 196, 226, 289, 290, 328, 452, 710.

21. Krishnaswamy OR. Methodology of research in social sciences. New Delhi: Himalya Publishing House; 1998. p. 132-9.

22. Kumar GS, Majumdar A, Kumar V, Naik BN, Selaraj K, Balajee K. Prevalence of acute respiratory infection among under-five children in urban and rural areas of Puducherry, India. Journal of Natural Science, Biology and Medicine. [Online] 2015 Jan; 6(1): 3-6. [Cited on 2015 Jul 25].
Available on URL: www.jnsbm.org

23. Haldar A, Mundle M, Ray A, Haldar S. Acute lower respiratory tract infection among under-fives in urban eastern India – An appraisal of risk factors. Journal of Commun Dis. 2005 Sep; 37(3):203-8. (Cited 2010 Jul 9).
Available on URL: http://www.nibi.nlm.nih.gov/pubmed/17080704.

24. Deb SK. Acute respiratory disease survey in Tripura in case of children below five years of age. Journal of Indian Med Association. 1998 Apr; 96(4):111-6. (Cited 2010 Jul 23).
Available on URL:
http://www.nibi.nlm.nih.gov/pubmed/9844332.

25. Md Abul Kalam Azad K. Risk factors for acute respiratory infections (ARI) among children under-five years in Bangladesh. Journal of Scientific Research. 2009 Feb;1(1):72-81.

26. Savita MR, Nandeeshwara SB, Pradeepkumar MJ, Ul-Haque F, Raju CK. Modifiable risk factors for acute lower respiratory tract infections. Indian Journal of Pediatrics 2007 May; 74(5): 477-82.

27. Yousif TK, Khaleq BA. Epidemiology of acute respiratory tract infections (ARI) among children under-five years old attending Tikirit general teaching hospital. Middle East Journal of Family Medicine. 2006 May; 4(3):4-19.

28. Kanchi P, Kakeri MK. BHJ: A Hospital based observational study of acute respiratory tract infections and some associated epidemiological factors in children of 0-5 years of age group. 2005(330); cited on [2008 Aug 28].
Available on URL:
http://www.bhj.org/journal/april2005/htm/original_ahospital_126.html

29. Sorenson KA, et al. "Population based study of ARI in children Greenland; Emergency infectious Diseases"; 2003 Jun 8(6): 586-593.

30. Acharya D, Prasanna KS, Nair S, Rao RSP. ARI in children: A community based longitudinal study in India. Indian Journal of Public Health; 2003 Jan-Mar 47(1): 7-3, 307.

31. Sikolia DN, Mwololo K, Cherop H, Hussein A, Juma M, Kurui J et,al. The prevalence of acute respiratory infections and the associated risk factors; A study of children under-five years of age in Kibera lindi village, Nairobi, Kenya. J. Natl. Inst. Public Health. 2002; 51(1):67-72.

32. Shireen Qassim Bham, Farhan Saeed and Manzar Alam Shah. Knowledge, Attitude and Practice of mothers on acute respiratory infection in children under five years Pakistan. Journal of Medical Sciences. 2016; 32 (6):1557-1561, PMCID: PMC5216320, PMID: 28083064

Available on URL:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216320/

33. Hilf TK. Mother's knowledge and attitude regarding childhood survival. Middle East journal of family medicine. 2007 Jan; 5(1): 6-16. [Cited on 2013 Oct 31]

Available on URL:

http://www.mejfm.com/journals/jan2007/mother-child.htm.

34. Saunders S. Maternal Knowledge, attitudes and practices concerning child health among mothers of children younger than 60 months in Kep District, Kingdom of Cambodia. [Online]. 2007 [cited 2013 Oct 2]; 1-30

Available on URL:

http://wiki.Straightjacketstudio.com/images/6/63/CIH2005-6NSaundersChild Health KAP.pdf.

35. Hashmi A, Kumar R, Soomro JA, Ghouri A. Knowledge, attitude and practice about acute respiratory infection among mothers of under-five children attending civil hospital. PHCOA. 2012 Jan; 2(6): 1-5 (Cited on 2012 May 1)

Available on URL:

http://www.omicsgroup.org/journals/PHCOA/PHCOA-2-10.php?aid=3793.

36. Devi Ashalata W. A study to assess the knowledge, practice and attitude on acute respiratory infection among mothers of under-five children at MCH Clinic. International Journal of Nursing Education. 2012 Feb; 4 (1): 8-11 (Cited on 2012 Dec 1).

Available on URL:
http://www.indianjournals.com/ijor.aspx?target=ijor:ijone&volume=4&issue=1&article=003.

37. Siddaraddi S. Assessment of knowledge, attitude and practice of mothers of under five children in rural area regarding ARI: A cross sectional study. KLE University's Health Science Journal. 2012; 5 (1): 33-37.

38. Bnandyopadhyay D, Ahemed T. A study of knowledge, attitude and practice among mothers towards acute respiratory infection in urban and rural communities. Reviews of progress. 2013 June; 1(8): 1-6. (Cited on 2013 Jul 20).

Available on URL: http://www.reviewsofprogree.org/

39. Malik AY, Iqbal I. Knowledge, and practice of mothers regarding acute respiratory infections in children under-five years of age in urban slums of Multan. Medical forum. 2012; 6(2):4. (Cited on 2013 Oct 31)

Available on URL:
http://www.medforum.pk/index.php?Option=comcontent&view=article&id=203%3Aknowledge-and-practices-of-mothersregarding-acute-respiratory-infection-in-children-under-5-years&Itemid=8.

40. Denno DM, Bentsi-Enchill A, Mock CN, Adelson JW. Maternal knowledge, attitude and practices regarding childhood acute respiratory infections in Kumasi, Ghana. Ann Trop Paediatrics. 1994; 14(4):293-301. (Cited 2010 Jul 20).

Available on URL: http://www.nibi.nlm.nih.gov/pubmed/7880091.

41. Khan AZ, Tickoo R, Arif T, Zaheer M. Mother's attitudes to children's chest infections in India. Journal of social health. 1995 Oct; 115(5):314-7. (Cited 2010 Jul 12).

Available on URL: http://www.nibi.nlm.nih.gov/pubmed/7473503.

42. Prajapati BJ, Talsania NJ, Lala MK, Sonalia KN. Knowledge, attitude and practices of mothers regarding acute respiratory infection(ARI) in urban and rural communities. National Journal of Integrated Research in Medicine. 2012 Apr-Jun; 3(2): 101-3. (Cited on 2012 Aug 20)

Available on URL: http://www.scopemed.org/?mno=20435

43. Pai MS. A study of correlates of acute respiratory tract infection among infants in a selected area of Udupi district. Nursing Journal of India. 2004 Jan. cited on [2008 Aug 28].

Available on URL: www.findarticles .com.

44. Imiyu DE, Walfula EM, Nduati RW. Mother's knowledge, attitudes and practices regarding acute respiratory infections in children in Baringo District, Kenya. East Afr. Med Journal. 2003 Jun; 80(6):303-7. (Cited 2010 Jul 18).

Available on URL:

http://www.nibi.nlm.nih.gov/pubmed/12953739

45. Onta M. Knowledge, Home care practice and health seeking behavior of mothers regarding ARI. Journal of Nursing Education of Nepal. 2003 Jan; 5(1):50-5.

46. Mali S. Effectiveness of Structured Teaching Program on knowledge of mothers of under five children on domiciliary management and prevention of upper respiratory tract infections. Singhad e Journal of Nursing. [online] 2012 Dec; 2(2): 44 – 7.(cited on 2015 Jul 25).

Available on URL:

http://www.sinhgad.edu/sinhgadnursingcollegeejournal/vol_ii_issue_ii/author_11.pdf.

47. Singh GR. Impact of Health Education on prevention practices of ARI among mothers living in urban slum-Bangalore. IOSR Journal of Nursing and Health Sciences. 2015 Jan-Feb; 4(1)I: 27-31.

48. Merlinshiba, Hemavathy V. Effectiveness of Structured Teaching Programme on knowledge of Acute Respiratory Tract Infection of mothers of under five children. Narayana Nursing Journal. Dec 2014; 18-9.

49. Prasanna LK, Sharma NK. Effectiveness of Structured Teaching Programme V/s. Self-Instructional Module Regarding prevention of Acute Respiratory Infections in Children among mothers. IOSR Journal of Nursing Health Science. 2014 Jan 3(1)II: 9-15. 46. Talbot LA. Principles and practice of nursing research. 1st ed. St. Louis, Mosby; 1995. p. 57, 68, 166, 241, 256-7.

50. Tauro VG, Dasarathan I. Effectiveness of Educational Package on Knowledge Regarding Pneumonia and its prevention among the mothers of under-five children in Dakshina Kannada district of Karnataka State. International Journal of Scientific Research. [online]. 2014 Oct; 3(10): 409-11. (Cited on 2015 Jul 25).

Available on URL: http://isindexing.com/isi/papers/1413185808.pdf.

51. Bhumi R, Arpan P, Ravindra HN. A Study to assess the effectiveness of Structured Teaching Programme on Knowledge Regarding "Acute Respiratory Tract Infection among Mothers of Under Five Children at Piparia, Vadodara" . International Journal of Nursing Education. [online] 2005; 7(3) : 51-5. (cited on 2015 Jul 25)

Available on URL:

http://www.indianjournals.com/ijor.aspx?target=ijor:ijone&volume=7&issue=3&article=012

52. Parvez MM, Wiroonpanich W, Naphapunsakul M. The effects of educational program on child care knowledge and behaviors of mothers of children under-five years with pneumonia. Bangladesh Journal of Medical Science. 2010 Jul;9(3):136-142.

53. Edwin SG. Effect of planned teaching programme on knowledge, practice and attitude on acute respiratory infection among mothers. The Nursing journal of India. 2009 Nov; C 1 (11):15-21.

54. Sasikala T, Dr. S Jayagowri. Effectiveness of structured teaching programme on acute upper respiratory infection. Nightingale Nursing Times. 2008 Jun; 4(3): 125.

55. N Shiva, Baby Nayak, PV Nisha. Knowledge and Attitude of Mothers of Under Five Children with Upper Respiratory Tract Infection. Indian Journal of Public Health Research and Development. 2016; 7. (4): 5

Available on URL:

https://www.researchgate.net/publication/309144489_Knowledge_and_Attitude_of_Mothers_of_Under_Five_Children_with_Upper_Respiratory_Tract_Infection

56. Jophin Joseph, Jyothy George. A Study to Assess the Effectiveness of Structured Teaching Programme Regarding Knowledge on Prevention of Upper Respiratory Tract Infection Among Mothers of Toddler in Selected Hospital, Bangalore. International Journal of Science and Research (IJSR). 2014; 4. (12) Available on: https://pdfs.semanticscholar.org/7043/443e874a67e484a273ce9eae39432d0ec10c.pdf

57. Dr. Sikandar Kumar. Management of upper respiratory tract infection among the mothers of under five children in selected area of Bhubaneswar, Odisha. International Journal of Nursing Education and research. 2014; 2(3): ISSN Print: 2347-8640, ISSN Online: 2454-2660

Available on URL:

http://ijneronline.com/HTMLPaper.aspx?Journal=International%20Journal%20of%20Nursing%20Education%20and%20Research;PID=2014-2-3-10

Annexure 1

Ethical Clearance letter

ERA UNIVERSITY

ERA'S LUCKNOW MEDICAL COLLEGE AND HOSPITAL

SARFRAZGANJ, HARDOI ROAD, LUCKNOW-226003
PHONE: 0522 – 8600777, FAX: 0522 – 2407824

Ref. No. ELMC &H/ RGU /EC/2019/10 Date: 18/01/2019

To,

Mr. Prabhat Kumar
Student of M.Sc. Nursing,
Era College of Nursing,
Era University,
Lucknow.

Dear Student,

I am happy to inform you that your Child Health Nursing Dissertation Protocol, on the topic entitled **"A study to assess the effectiveness of structured teaching program on knowledge among mothers of under-five children regarding prevention of upper respiratory tract infection (URTI) in paediatric ward of Era Lucknow Medical College & Hospital of Lucknow, U.P."** under guidance of Ms. Madhu Kumari Gupta has been **"Approved"** by the Institutional Ethics Committee.

Final Decision: **"APPROVED"**

Prof. Syed Tasleem Raza
Joint Secretary,
Institutional Ethics Committee,
Era's Lucknow Medical College & Hospital,
Lucknow.

Prof. Luxmi Singh
Member Secretary,
Institutional Ethics Committee,
Era's Lucknow Medical College & Hospital
Lucknow.

Copy to:
- Ms. Madhu Kumari Gupta (Guide), Era College of Nursing
- Office Copy

Annexure 2 (a)

LETTER SEEKING EXPERT'S OPINION ON CONTENT VALIDITY OF TOOLS

From,

Prabhat Kumar

M. Sc. Nursing II Year

Child Health Nursing Department

Era College of Nursing, Lucknow (U.P.)

Through

The Principal

Era College of Nursing, Lucknow (U.P.)

Subject: Expert Opinion for Content Validity of Research Project Tools.

Respected Sir/Madam,

This is for your kind information that I am II Year M. Sc. Nursing (Child Health Nursing) student of Era College of Nursing, Lucknow. As partial fulfilment of Master of Science in Nursing, I have undertaken the following research study which has to be submitted to Era University, Lucknow (U.P.)

Research Study on:

"A Study to Assess the Effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in Pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."

Objectives

- To evaluate the effectiveness of structured teaching program regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in Pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P.

To achieve objective of the dissertation I prepared the following

Tool 1: Questionnaire on demographic variables

Tool 2: Structured Questionnaire on prevention of upper respiratory tract infection.

Please go through the tools and guide me with your precious view regarding appropriateness of the tools and valuable suggestions for the improvement and modification of the tools.

I humbly request you to kindly certify the tools as soon as possible.

Thanking you,

You're sincerely

Prabhat Kumar **Signature of Guide**

Signature of Principal

Enclosure:

- Tools for validation
- Lesson plan for structured teaching program on upper respiratory tract infection
- Criterion checklist
- Certificate for validation

LETTER SEEKING EXPERT'S OPINION ON CONTENT VALIDITY OF TOOLS

From,

Prabhat Kumar

M. Sc. Nursing II Year

Child Health Nursing Department

Era College of Nursing, Lucknow (U.P.)

Through

The Principal

Era College of Nursing, Lucknow (U.P.)

Subject: Expert Opinion for Content Validity of Research Project Tools.

Respected Sir/Madam,

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Research Study on:

"A Study to Assess the Effectiveness of Structured Teaching Program on knowledge among the Mothers of under Five Children regarding Prevention of Upper Respiratory Tract Infection (URTI) in Paediatric ward at Era's Lucknow Medical college & Hospital of Lucknow, U.P."

Objectives

- To evaluate the effectiveness of structured teaching program among the mothers of under five children regarding prevention of Upper Respiratory Tract Infection (URTI) in Pediatric ward at Era's Lucknow Medical College & Hospital of Lucknow, U.P.

To achieve objective of the dissertation I prepared the following

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Thanking you,

You're sincerely

Prabhat Kumar

Madhu Kumari Gupta

Signature of Guide

MADHU KUMARI GUPTA
Assistant Professor
Era University
Era College Of Nursing
Lucknow

Signature of Principal

Principal
Era's College of Nursing
Lucknow

Enclosure:

- Tools for validation
- Lesson plan for structured teaching program on upper respiratory tract infection
- Criterion checklist
- Certificate for validation

Annexure 2 (b)

LETTER SEEKING OPINION AND SUGGESTION OF EXPERTS TO VALIDATE THE TOOLS

From,

Prabhat Kumar

M. Sc. Nursing II Year

Child Health Nursing Department

Era College of Nursing, Lucknow (U.P.)

Through

The Principal

Era College of Nursing, Lucknow (U.P.)

To,

Subject: Expert Opinion for Content Validity of Research Project Tools.

Respected Sir/Madam,

This is for your kind information that I am II Year M. Sc. Nursing (Child Health Nursing) student of Era College of Nursing, Lucknow. As partial fulfilment of Master of Science in Nursing, I have undertaken the following research study which has to be submitted to Era University, Lucknow, U.P.

Research Study on:

"A Study to Assess the Effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in Pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."

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Please go through the tools and guide me with your precious view regarding appropriateness of the tools and valuable suggestions for the improvement and modification of the tools.

I humbly request you to kindly certify the tools as soon as possible.

Thanking you,

You're sincerely

Prabhat Kumar **Signature of Guide**

Signature of Principal

Enclosure:

- Tools for validation
- Lesson plan for structured teaching program on upper respiratory tract infection
- Criterion checklist
- Certificate for validation

LETTER SEEKING OPINION AND SUGGESTION OF EXPERTS TO VALIDATE THE TOOLS

From,

Prabhat Kumar

M. Sc. Nursing II Year

Child Health Nursing Department

Era College of Nursing, Lucknow (U.P.)

Through

The Principal

Era College of Nursing, Lucknow (U.P.)

To,

Subject: Expert Opinion for Content Validity of Research Project Tools.

Respected Sir/Madam,

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Research Study on:

"A Study to Assess the Effectiveness of Structured Teaching Program on knowledge among the Mothers of under Five Children regarding Prevention of Upper Respiratory Tract Infection (URTI) in Paediatric ward at Era's Lucknow Medical college & Hospital of Lucknow, U.P."

Objectives

- To evaluate the effectiveness of structured teaching program among the mothers of under five children regarding prevention of Upper Respiratory Tract Infection (URTI) in Pediatric ward at Era's Lucknow Medical College & Hospital of Lucknow, U.P.

To achieve objective of the dissertation I prepared the following

Tool 1: Questionnaire on demographic variables

Tool 2: Structured Questionnaire on prevention of upper respiratory tract infection.

Please go through the tools and guide me with your precious view regarding appropriateness of the tools and valuable suggestions for the improvement and modification of the tools.

I humbly request you to kindly certify the tools as soon as possible.

Thanking you,

You're sincerely

Prabhat Kumar

Madhu Kumari Gupta
MADHU KUMARI GUPTA
Assistant Professor
Era University
Era College Of Nursing
Lucknow

Signature of Guide

Signature of Principal
Era's College of Nursing
Lucknow

Enclosure:

- Tools for validation
- Lesson plan for structured teaching program on upper respiratory tract infection
- Criterion checklist
- Certificate for validation

Annexure 2 (c)

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date:

Designation:

Annexure 2 (d)

CONTENT VALIDITY CERTIFICATE

I hereby certify that I have validated the tools of Mr. Prabhat Kumar II[nd] Year M.Sc. Nursing student who is undertaking a study **"A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in Pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."**

Date: **Signature of the expert:**

Place: **Name:**

Designation:

Annexure 2 (e)

CRITERIA QUESTIONNAIRE AND CHECKLIST FOR VALIDATION OF THE TOOL

EVALUATION CRITERIA FOR QUESTIONNAIRE

INSTRUCTIONS: Please review the items in the tool and give your suggestions regarding the accuracy, relevance and appropriateness of the content. Kindly place a tick mark (√) in the appropriate column. If there are any suggestions or comments please mention in the remarks column.

SECTION A – (Questionnaire on demographic variables)

SR. No	RELEVANT	NOT RELEVANT	REMARKS
1.			
2.			
3.			
4.			
5.			
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7.			
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9.			

SECTION - B

STRUCTURED QUESTIONNAIRE REGARDING PREVENTION OF UPPER RESPIRATORY TRACT INFECTION

SR. No	RELEVANT	NOT RELEVANT	REMARKS
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SUGGESTIONS IF:

_____

Name and Designation

Date:

Place: **Signature and seal of the Expert**

Annexure 3

LIST OF EXPERTS OF CONTENT VALIDITY

1. **Dr. Chhavi Nanda**
   Associate Professor
   Era's Lucknow Medical College & Hospital, Lucknow

2. **Dr. Geetika**
   Associate Professor
   Era's Lucknow Medical College & Hospital, Lucknow

3. **Ms. Reena Raj**
   Associate Professor
   College of Nursing, K.G.M.U, Lucknow

4. **Ms. Mariyamma**
   Associate Professor
   Samarpan Institute of Nursing, Lucknow

5. **Ms. Angelin Betti**
   Assistant Professor
   Suruchi Institute of Nursing, Lucknow

6. **Mr. Sunil**
   Assistant Professor
   Hind Institute of Nursing, Atariya, Lucknow

7. **Ms. Anugrah Charan**
   Clinical Instructor
   College of Nursing, K.G.M.U, Lucknow

8. **Ms. Sikha Malik**
   Clinical Instructor
   College of Nursing, K.G.M.U, Lucknow

9. **Mr. Midhun**
   Associate Professor
   SGRR College of Nursing, Dehradun,
   Uttarakhand

10. **Mr. Praveen**
    Associate Professor
    SGRR College of Nursing, Dehradun,
    Uttarakhand

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 14.5.19.

Designation: Associate Professor - Paediatrics.

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 14/5/19

Designation: ASSOCIATE PROFESSOR
PEDIATRICS

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 14/5/2019

Designation: Asst Prof

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 8/5/19

Designation: Associate Professor

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 10/5/2019.

Designation: Assit. Professor in Nursing.
Deptt: Child Health Nursing.

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 14/05/2019

Designation: Asst. Professor in child Health nursing

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

The student researcher needs some corrections in his content which is told to him.

Signature:

Date: 14/5/2019.

Designation:

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 15/1/2019

Designation: C I

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature:

Date: 20/05/2019

Designation: Associate Professor

CERTIFICATE OF VALIDATION OF THE TOOLS FROM THE EXPERT

This is to certify that I have gone through the tools constructed by M. Sc. Nursing (Child Health Nursing) 2nd Year student from Era College of Nursing, Lucknow.

I have found them valid.

Signature: 

Date: 04/06/2019

Designation: Associate Professor

Annexure 4 (a)

Letter Seeking Permission for Conducting the Pilot Study

ERA'S COLLEGE OF NURSING
SARFARAZGANJ, HARDOI ROAD, LUCKNOW-226 003
Phone : 0522- 2408122-23, Fax : 0522-2407824

Ref. No. ESON/२९४/०५/१९ Date...31/05/19...

To,

Director, Medical Services
CharakHospital& Research Centre
Lucknow

REQUESTING PERMISSION FOR CONDUCTING RESEARCH PROJECT

Respected Sir/Madam,

Greetings from Era College Of Nursing!!!

Mr. Prabhat KumarM.Sc. Nursing student has selected, below mentioned topic for his research project for partial fulfillment of Master of Science in Nursing degree which is to be submitted to Era University, Lucknow.

"A Study to Assess the Effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among Mothers of Under Five Children in Pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P."

Student needs your esteemed help and cooperation for completion of pilot study of the project.

I request you to kindly permit him to conduct study at Charak Hospital & Research Centre.

Thanking you

With regards

Dr. Manik Kumar Saxena
MBBS (KGMC), Dip. in Family Medicine (CMC, Vellore),
PGDHHM (SGPGIMS), CCEBDM (PHFI),
Fellowship in Intensive Care Medicine (Apollo Hospital & Medvarsity)
Director, Medical Services
Charak Hospital & Research Center, Lucknow
Reg. No. UP/046225

Principal
Dean / Principal
Era's College of Nursing
Lucknow

Annexure 4 (b)

Letter Seeking Permission for Conducting the Main Study

ERA UNIVERSITY LUCKNOW
ERA'S COLLEGE OF NURSING
SARFARAZGANJ HARDOI ROAD LUCKNOW-226003
PHONE: 2408122, 2408123. FAX NO:-0522- 2404699

Ref. No. ECoN/221/05/19 Date: - 01/05/19

To,

The Medical Superintendent

Era's Lucknow Medical College & Hospital,

Sarfarazganj

Lucknow

REQUESTING PERMISSION FOR CONDUCTING RESEARCH PROJECT

Respected Sir/ Madam,

- Mr. Prabhat Kumar M.Sc. Nursing students has selected, below mentioned topic for his research project for the partial fulfillment of Master of Science in Nursing Degree which is to be submitted to Era University, Lucknow.
  "A Study to Assess the Effectiveness of Structured Teaching Program on knowledge among the Mothers of Under Five Children regarding Prevention of Upper Respiratory Tract Infection (URTI) in Pediatric ward at Era's Lucknow Medical college & Hospital of Lucknow, U.P."
- Students need your esteemed help and co-operation for the completion of the project.
- I request you kindly permit him to conduct the proposed research project at Era's Lucknow Medical College & Hospital, Lucknow.

for PRINCIPAL
COLLEGE OF NURSING

ALLOWED

01/5/19

Thanking you with regards

Principal
Era's College of Nursing
Lucknow

Annexure 5 (a)

Letter for Tool Editing (English)

Letter from Editor

From,

Mr. Prabhat Kumar

M.Sc. Nursing 2nd year

Era College of Nursing,

Lucknow

To,

Mr. Shiv Charan Gupta

Subject: Letter seeking permission for editing the research tool (English Version).

Respected Sir/Ma'am,

I humbly request you to go through the enclosed research tool and kindly edit the appropriateness of English language used as the alignment of the whole research tool. This tool is a part of my research study which is conducted by me as a part of my M.Sc. Nursing program under INC guideline.

Kindly refine the research tool in term of language and alignment for improving my dissertation. Your valuable correction and suggestion will be of great help in ensuring of the quality of my research tool.

Thanking you in anticipation.

Yours faithfully

Mr. Prabhat Kumar

Date: 18/03/19

Place: Lucknow

Name: Shivcharan Gupta

Signature: S-C-Gupta

Lucknow Memorial
Public High School
Gopalpuri Alambagh, Lko.

Annexure 5 (b)

Letter for Tool Editing (Hindi)

Letter from Editor

From,

Mr. Prabhat Kumar

M.Sc. Nursing 2nd year

Era College of Nursing,

Lucknow

To,

Mrs. Manju Mishra

Subject: Letter seeking permission for editing the research tool (Hindi Version).

Respected Sir/Ma'am,

I humbly request you to go through the enclosed research tool and kindly edit the appropriateness of Hindi language used as the alignment of the whole research tool. This tool is a part of my research study which is conducted by me as a part of my M.Sc. Nursing program under INC guideline.

Kindly refine the research tool in term of language and alignment for improving my dissertation. Your valuable correction and suggestion will be of great help in ensuring of the quality of my research tool.

Thanking you in anticipation.

Yours faithfully

Mr. Prabhat Kumar

Date: 18/03/19

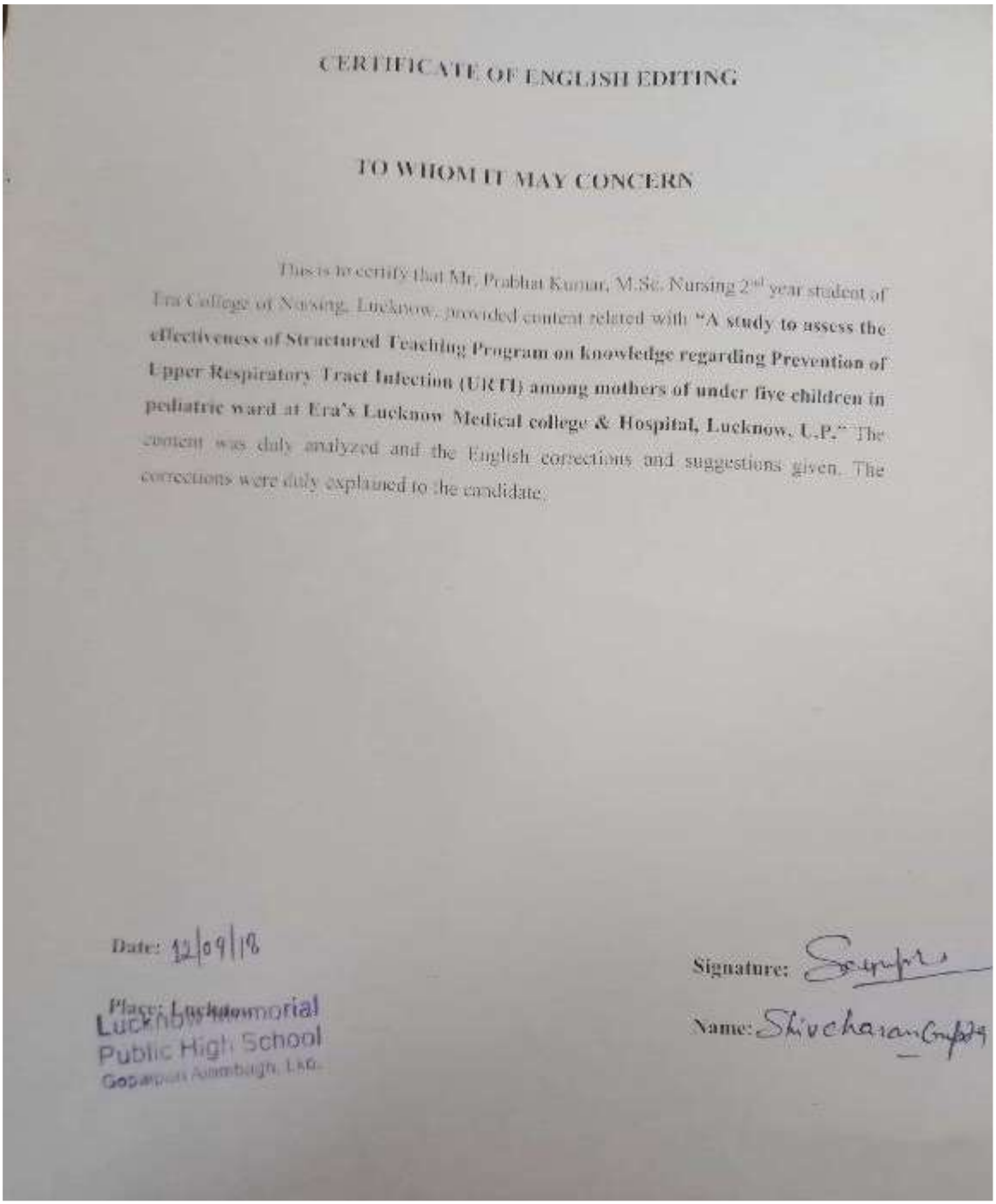
Place: Lucknow

Name: Manju mishra

Signature:

Lucknow Memorial
Public High School
Gopalpuri Alambagh, Lko.

Annexure 6



CERTIFICATE OF ENGLISH EDITING

TO WHOM IT MAY CONCERN

This is to certify that Mr. Prabhat Kumar, M.Sc. Nursing 2nd year student of Era College of Nursing, Lucknow, provided content related with "**A study to assess the effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection (URTI) among mothers of under five children in pediatric ward at Era's Lucknow Medical college & Hospital, Lucknow, U.P.**" The content was duly analyzed and the English corrections and suggestions given. The corrections were duly explained to the candidate.

Date: 12/09/18

Place: Lucknow

Signature:

Name: Shivcharan Gupta

Memorial Public High School

Annexure 7 (a)

INFORMED CONSENT OF PARTICIPANTS

Dear Participant,

I Prabhat Kumar student of M.Sc. Nursing 2nd year. I propose to do a study on- **"A study to Assess the Effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection among Mothers of Under Five Children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P."**

I need your cooperation and participation in the research study. As a part of my study I would like to ask you few questions.

Your honest response would be valuable for my study, I assure you that your response would be kept confidential and would be used only for the purpose of making research study. Any complication because of the research study will be my responsibility.

Signature of the Investigator

I am willing to participate in the study and aware that the information provided will be kept confidential and used for the study purpose only. The outcome will be published in journal.

Place:

Date:

Signature of the Participant

Annexure 7 (b)

साझेदारों की सूचित सहमति पत्र

प्रिय प्रतिभागी,

मैं प्रभात कुमार M.Sc. Nursing द्वितीय वर्ष मैं एक अध्ययन करने का प्रस्ताव करता हूँ।

"A study to Assess the Effectiveness of Structured Teaching Program on knowledge regarding Prevention of Upper Respiratory Tract Infection among Mothers of Under Five Children in pediatric ward at Era's Lucknow Medical College & Hospital, Lucknow, U.P."

मुझे शोध अध्ययन में आपके सहयोग और भागीदारी की आवश्यकता हैं। मैं अपने अध्ययन के एक हिस्से के रूप में मैं आपसे कुछ प्रश्न पूछना चाहूंगा।

मेरे अध्ययन के लिए आपकी ईमानदार प्रतिक्रिया मूल्यवान होगी, मैं आपको विश्वास दिलाता हूं कि आपकी प्रतिक्रिया को गोपनीय रखा जाएगा और इसका उपयोग केवल शोध अध्ययन करने के उद्देश्य से किया जाएगा। शोध अध्ययन के कारण कोई भी जटिलता होने पर मेरी जिम्मेदारीं होगी।

अन्वेषक के हस्ताक्षर

मैं अध्ययन में भाग लेने के लिए तैयार हूं और इस बात से अवगत हूं कि प्रदान की गई जानकारी को गोपनीय रखा जाएगा और केवल अध्ययन उद्देश्य के लिए उपयोग किया जाएगा। परिणाम पत्रिका में प्रकाशित किया जाएगा।

जगहः

दिनांकः

प्रतिभागी का हस्ताक्षर

Annexure 8

BLUE PRINT

TOPIC – UPPER RESPIRATORY TRACT INFECTION

TOTAL ITEMS – 30

TOTAL TIME – 30 MINUTES

TOTAL MARK - 30

S. No.	Content Area	Multiple Choice Questions	Total No. of Question	Percentage
1.	**Anatomy & Physiology of respiratory tract**	1, 2	2	6.66%
2.	**Cause of Upper Respiratory Tract Infection**	3, 4, 5, 6, 7, 8	6	20%
3	**Clinical features of Upper Respiratory Tract Infection**	9, 10, 11, 12, 13, 14	6	20%
4.	**Home care management of Upper Respiratory Tract Infection**	15, 16, 17, 18, 19, 20	6	20%
5.	**Preventive Measures of Upper Respiratory Tract Infection**	21, 22, 23, 24, 25	5	16.67%
6.	**Vaccination**	26, 27, 28, 29, 30	5	16.67%
Total			30	100%

Annexure 9 (a)

Section A

Demographic variables

1. **Age (in years)**
   - **a.** Below 20 ( )
   - **b.** 21-25 ( )
   - **c.** 26-30 ( )
   - **d.** Above 30 ( )

2. **Educational status**
   - **a.** Illiterate ( )
   - **b.** Primary education ( )
   - **c.** Higher primary or lower secondary ( )
   - **d.** Higher secondary ( )
   - **e.** Senior secondary ( )
   - **f.** Degree or others ( )

3. **Occupational status**
   - **a.** Housewife ( )
   - **b.** Working ( )
   - **c.** Business ( )

4. **Place of Resident**
   - **a.** Urban ( )
   - **b.** Rural ( )
   - **c.** Slums ( )

5. Family income (rupee/month)

a. Below 10,000 ( )

b. 10,000 - 20,000 ( )

c. 20,000 - 30,000 ( )

d. Above 30,000 ( )

6. Types of family

a. Nuclear family ( )

b. Joint family ( )

7. No. of living children

a. One ( )

b. Two ( )

c. More than 2 ( )

8. Immunization status

a. Completely ( )

b. Partially ( )

c. Not Immunized ( )

9. Family history of allergic respiratory disease

a. Yes ( )

b. No ( )

Section B

Multiple Choice Questions

1. Which organ helps in respiration?

- **a.** Lungs ( )
- **b.** Liver ( )
- **c.** Stomach ( )
- **d.** Kidney ( )

2. What is the functions of the little hair inside the nose?

- **a.** To fight disease. ( )
- **b.** They serve no purpose ( )
- **c.** To keep dust out of the lungs ( )
- **d.** To tickle the nose and cause sneeze. ( )

3. Which type of organism causes upper respiratory tract infection?

- **a.** Insects ( )
- **b.** Virus ( )
- **c.** Flies ( )
- **d.** Worms ( )

4. What are the mode of transmission of upper respiratory tract infection?

- **a.** Through droplets in the air ( )
- **b.** Through cloths ( )
- **c.** Through utensils ( )
- **d.** Through bathing ( )

5. Which of the following is the example for air born/droplet transmission of infection?

- **a.** Speaking ( )

b. Breathing ( )

c. Sneezing ( )

d. Eating ( )

6. Which of the following is more common route in causing upper respiratory tract infection?

a. Fecal oral route ( )

b. Respiratory & surface route ( )

c. Cuts in the skin ( )

d. Sexual transmission ( )

7. Which season affects child most in causing upper respiratory tract infection?

a. Summer season (May & June) ( )

b. Autumn & winter season (September to March) ( )

c. Spring & summer season (April to August) ( )

d. Winter season (December & January) ( )

8. Which is the common risk factor of upper respiratory tract infection in under five children?

a. Proper immunization ( )

b. Breast feeding ( )

c. Overcrowding ( )

d. Unhygienic food ( )

9. Which are the common sign and symptom of upper respiratory tract infection?

a. Continuous sneezing, running nose, cough & fever ( )

b. Nausea & vomiting ( )

c. Pain in abdomen ( )

d. Loose motion ( )

10. What is the normal body temperature?

a. 100^0F ( )

b. 98.6^0F ( )

c. 96.6^0F ( )

d. 95^0F ( )

11. How many days will it take to recover from common cold & cough if child is having upper respiratory tract infection?

a. 1-2 days ( )

b. 3-14 days ( )

c. 15-20 days ( )

d. 21-30 days ( )

12. What are the danger signs of upper respiratory tract infection?

a. Difficulty in breathing ( )

b. Running nose ( )

c. Sneezing ( )

d. Fever & cough ( )

13. Which of the following infection is more prone for mothers to consult doctor?

a. Sneezing ( )

b. Running nose ( )

c. Cough ( )

d. Nasal block ( )

14. How many upper respiratory tract infection are normal in each year?

a. 3 to 5 ( )

b. 8 to 10 ( )

c. 12 to 15 ( )

d. More than 15 ( )

15. How upper respiratory tract infection should be treated in under five children at home?

a. Steam inhalation ( )

b. Apply warm pack to the face ( )

c. Provide breast feeding ( )

d. Immunization ( )

16. How you will provide steam inhalation at home to the children?

a. Hot water ( )

b. Cold water ( )

c. Hot water with Vicks ( )

d. Cold water with Vicks ( )

17. What home remedies should be taken to control fever in child?

a. Ice Sponging ( )

b. Hot water sponging ( )

c. Cold water sponging ( )

d. Tap water sponging ( )

18. Which home remedies are used to treat the upper respiratory tract infection?

a. Avoid cold, dry air if possible. ( )

b. Adequate hydration with water, juices, and non-caffeinated drinks ( )

c. Reducing contact with people who may have the infection ( )

d. Perform the hand washing ( )

19. Which of the following is effective diet for child with upper respiratory tract infection?

- **a.** Spicy energetic diet and drinking warm water ( )
- **b.** Stale food and drinking cold water ( )
- **c.** Easy digestible food & drinking warm beverages ( )
- **d.** Chocolates or which food that child wants to take. ( )

20. How to promote rest & sleep in children with upper respiratory tract infection?

- **a.** Handle the child as little as possible to provide rest. ( )
- **b.** Provide diversion therapy to the child to avoid boredom. ( )
- **c.** Provide cough suppressants by awakening the child. ( )
- **d.** Giving warm bath and milk prior to sleep, empty the bladder and provide cough syrup to the child. ( )

21. What precaution should be taken by mothers during upper respiratory tract infection in children?

- **a.** Let the child wear full sleeves shirts & protect the child from cold ( )
- **b.** Give spicy food to the children ( )
- **c.** Give cold water to the children ( )
- **d.** Provide blanket to the children ( )

22. What are the simple ways to be used by the mothers to prevent infections among children?

- **a.** Regularly washing hands with soap and running water ( )
- **b.** Provide more liquid diet ( )
- **c.** Daily bathing and exercises ( )
- **d.** Worshiping god ( )

23. Which of the following helps to prevent upper respiratory tract infection in children?

- **a.** Do not breastfeed the baby ( )
- **b.** Do not give the seasonal fruits to the child. ( )
- **c.** Avoid regular health check-up ( )
- **d.** Protect the child from smoke & dust. ( )

24. Which of the following is the best way to prevent the transmission of upper respiratory tract infection?

- **a.** Reduce the contact with the child with upper respiratory tract infection ( )
- **b.** Cover the mouth & nose while sneezing & coughing. ( )
- **c.** Isolate the child who having upper respiratory tract infection ( )
- **d.** Do not allow the child to share toys or food. ( )

25. Which of the following measures helps to protect the child from infection?

- **a.** Immunization ( )
- **b.** Unhygienic food ( )
- **c.** Washing the cloths ( )
- **d.** Playing in the ground ( )

26. Which vaccine is used in children to prevent respiratory infections like pneumonia?

- **a.** BCG vaccine ( )
- **b.** Pneumococcal conjugate vaccine and pneumococcal polysaccharide vaccine ( )
- **c.** Rota virus vaccine ( )
- **d.** DPT vaccine ( )

27. What is the appropriate time for pneumococcal conjugate vaccine (PCV) vaccination?

- **a.** 6 weeks, 10 weeks & 14 weeks ( )
- **b.** 6 weeks, and 10 weeks ( )
- **c.** 10 months ( )
- **d.** 12 months ( )

28. What is the appropriate age for pneumococcal polysaccharide vaccine (PPV) vaccination?

- **a.** 9 months ( )
- **b.** 16 months ( )
- **c.** 1 year ( )
- **d.** Above 2 years ( )

29. Who should be vaccinated with pneumococcal polysaccharide vaccine (PPV) vaccine?

- **a.** Child whose age is above 2 years and risk of pneumococcal infection ( )
- **b.** Everybody aged 65 years and above ( )
- **c.** Both of the above ( )
- **d.** None of the above ( )

30. Which of the statement is correct regarding pneumococcal vaccine?

- **a.** This vaccine give protection against pneumococcal disease. ( )
- **b.** This vaccine give protection against tuberculosis ( )
- **c.** This vaccine give protection against chicken pox ( )
- **d.** This vaccine give protection against malaria ( )

Answer Key

1.	**a**
2.	**c**
3.	**b**
4.	**a**
5.	**c**
6.	**b**
7.	**b**
8.	**c**
9.	**a**
10.	**b**
11.	**b**
12.	**a**
13.	**d**
14.	**a**
15.	**a**
16.	**a**
17.	**d**
18.	**b**
19.	**c**
20.	**d**
21.	**a**
22.	**a**
23.	**d**
24.	**b**
25.	**a**
26.	**b**
27.	**a**
28.	**d**
29.	**c**
30.	**a**

Annexure 9 (b)

अनुभाग एक

जनसांख्यिकीय चर

1. **आयु वर्षों में**

   अ. 20 से नीचे ( )

   ब. 21–25 ( )

   स. 26–30 ( )

   द. 30 से ऊपर ( )

2. **शैक्षिक स्थिति**

   अ. निरक्षर ( )

   ब. प्राथमिक शिक्षा ( )

   स. उच्च प्राथमिक या निम्न माध्यमिक ( )

   द. उच्च माध्यमिक ( )

   य. उच्चतर माध्यमिक ( )

   न. डिग्री या अन्य ( )

3. **व्यावसायिक स्थिति**

   अ. गृहिणी ( )

   ब. नौकरी ( )

   स. व्यापार या निजी व्यवसाय ( )

4. **निवास का स्थान**

   अ. शहरी इलाको में ( )

   ब. ग्रामीण इलाको में ( )

   स. मलिन बस्तियो में ( )

5. **पारिवारिक आय**

   अ. 10,000 से नीचे ( )

   ब. 10,000 से 20,000 ( )

स. 21,000 से 30,000 ( )

द. 30,000 से ऊपर ( )

6. परिवार के प्रकार

अ. एकल परिवार ( )

ब. संयुक्त परिवार ( )

7. जीवित बच्चों की संख्या

अ. एक ( )

ब. दो ( )

स. दो से अधिक ( )

8. टीकाकरण की स्थिति

अ. पूरी तरह से ( )

ब. आंशिक रुप से ( )

स. बिल्कुल नहीं ( )

9. एलर्जी सम्बन्धी श्वसन रोग का पारिवारिक इतिहास

अ. हॉ ( )

ब. नहीं ( )

अनुभाग दो

बहुबिकल्पीय प्रश्न

1. श्वसन में कौन–सा अंग मदद करता है?

   अ. फेफड़े ( )

   ब. जिगर ( )

   स. पेट ( )

   स. गुर्दा ( )

2. नाक के अंदर छोटे बालों का क्या कार्य है?

   अ. बीमारी से लड़ने के लिए। ( )

   ब. उनका कोई कार्य नहीं हैं। ( )

   स. फेफड़ो से धूल को बाहर रखने के लिए। ( )

   द. नाक में गुदगुदी करना और छींक आना। ( )

3. ऊपरी श्वसन पथ का संक्रमण किस प्रकार के जीव के कारण होता है?

   अ. मकोड़े ( )

   ब. वायरस ( )

   स. मक्खियां ( )

   द. कीड़े ( )

4. ऊपरी श्वसन पथ के संक्रमण के फैलने की विधि क्या हैं?

   अ. हवा के माध्यम से ( )

   ब. कपड़ो के माध्यम से ( )

   स. बर्तनों के माध्यम से ( )

   द. स्नान के माध्यम से ( )

5. निम्नलिखित में से कौन संक्रमण के हवा या छोटी बूंद द्वारा फैलने का उदाहरण हैं?

   अ. बोलने से ( )

   ब. सॉस लेने से ( )

   स. छींकने से ( )

   द. भोजन करने से ( )

6. ऊपरी श्वसन पथ के संक्रमण के लिए निम्नलिखित में से कौन–सा सामान्य मार्ग हैं?

अ. मल मौखिक मार्ग ( )

ब. श्वसन और सतह मार्ग ( )

स. त्वचा के जख्म ( )

द. यौन संचरण ( )

7. ऊपरी श्वसन पथ के संक्रमण के लिए कौन–सा मौसम बच्चे को सबसे अधिक प्रभावित करता हैं?

अ. गर्मी का मौसम (मई और जून) ( )

ब. पतझड़ और सर्दियों का मौसम (सितम्बर से मार्च) ( )

स. बसंत और गर्मी का मौसम (अप्रैल से अगस्त) ( )

द. सर्दी का मौसम (दिसम्बर और जनवरी) ( )

8. पांच वर्ष से कम उम्र के बच्चों में ऊपरी श्वसन पथ के संक्रमण के सामान्य जोखिम वाले कारक क्या है?

अ. उचित टीकाकरण ( )

ब. स्तनपान कराना ( )

स. भीड़भाड़ ( )

द. अनहेल्दी खाना ( )

9. ऊपरी श्वसन पथ के संक्रमण के सामान्य संकेत और लक्षण कौन–से हैं?

अ. लगातार छींक आना, नाक बहना, खॉसी और बुखार ( )

ब. मतली और उल्टी ( )

स. पेट में दर्द ( )

द. दस्त ( )

10. शरीर का सामान्य तापमान कितना होता हैं?

अ. 100^0F ( )

ब. 98.6^0F ( )

स. 96.6^0F ( )

द. 95^0F ( )

11. आमतौर पर बच्चों को ऊपरी श्वसन पथ का संक्रमण होने पर सर्दी और खांसी से उबरने में कितना समय लगता हैं?

अ. 1 से 2 दिन ( )

ब. 3 से 14 दिन ( )

स. 15 से 20 दिन ( )

द. 21 से 30 दिन ( )

12. ऊपरी श्वसन पथ के संक्रमण के खतरे के संकेत क्या हैं?

अ. सांस लेने में कठिनाई ( )

ब. बहती नाक ( )

स. छींक आना ( )

द. बुखार और खांसी ( )

13. निम्नलिखित में से कौन–सा लक्षण यह दर्शाता है कि संक्रमण ज्यादा हो गया है और डॉक्टर से परामर्श करने की आवश्यकता हैं?

अ. छींक आना ( )

ब. बहती नाक ( )

स. खांसी ( )

द. नाक ब्लाक हो जाना ( )

14. प्रत्येक वर्ष में कितने ऊपरी श्वसन पथ के संक्रमण सामान्य होते हैं?

अ. 3 से 5 ( )

ब. 8 से 10 ( )

स. 12 से 15 ( )

द. 15 से अधिक ( )

15. पांच वर्ष से कम उम्र के बच्चों में ऊपरी श्वसन पथ के संक्रमण का इलाज घर पर कैसे किया जाना चाहिए?

अ. भाप देकर (स्टीम इनहेलेशन) ( )

ब. चेहरे पर गर्म पैक रखकर ( )

स. बच्चें को स्तन–पान करायें ( )

द. टीकाकरण ( )

16. आप बच्चों को घर पर स्टीम इनहेलेशन कैसे प्रदान करेंगीं?

अ. गर्म पानी से ( )

ब. ठंडे पानी से ( )

स. विक्स के साथ गर्म पानी द्वारा ( )

द. विक्स के साथ ठंडे पानी द्वारा ( )

17. बच्चों में बुखार को नियंत्रित करने के लिए क्या घरेलू उपाय किए जाने चाहिए?

अ. बर्फ से स्पंजिंग ( )

ब. गर्म पानी से स्पंजिंग ( )

स. ठंडे पानी से स्पंजिंग ( )

द. नल के पानी से स्पंजिंग ( )

18. ऊपरी श्वसन पथ के संक्रमण के इलाज के लिए कौन से घरेलू उपचार का उपयोग किया जाता हैं?

अ. यदि संभव हो तो ठंडी और शुष्क हवा से बचें। ( )

ब. पानी, फलो का रस और गैर–कैफीन यक्त पेय का प्रयोग करना। ( )

स. ऐसे लोगों से संपर्क कम करना जिन्हे संक्रमण हैं। ( )

द. हाथ धोना ( )

19. बच्चों में ऊपरी श्वसन पथ का संक्रमण होने पर निम्नलिखित में से कौन–सा प्रभावी आहार हैं?

अ. मसालेदार ऊर्जावान आहार और गर्म पानी ( )

ब. बासी भोजन और ठंडा पानी ( )

स. आसान सुपाच्य भोजन और गर्म पेय (गर्म अदरक वाली चाय या गर्म दूध) ( )

द. चॉकलेट या वह भोजन जो बच्चा खाना चाहता हैं। ( )

20. ऊपरी श्वसन पथ के संक्रमण वाले बच्चों में आराम और नींद को कैसे बढ़ावा दें?

अ. आराम प्रदान करने के लिए जितना संभव हो उतना कम बच्चे को संभालें या गोद में लें। ( )

ब. बच्चे को बोरियत से बचाने के लिए डायवर्सन थेरेपी प्रदान करें। ( )

स. बच्चे को जगाकर खांसी की दवाईयॉ प्रदान करें। ( )

द. सोने से पहले गर्म स्नान और गर्म दूध देना, मूत्राशय को खाली करना और बच्चे को खांसी की दवाई देना। ( )

21. बच्चों में ऊपरी श्वसन पथ के संक्रमण के दौरान उनकी माताओं के द्वारा क्या सावधानियां बरती जानी चाहिए?

अ. बच्चे का पूरी बांह की शर्ट पहनाए और ठंड से बचाएं। ( )

ब. बच्चों को मसालेदार भोजन दें। ( )

स. बच्चों को ठंडा पानी दें। ( )

द. बच्चों को कंबल प्रदान करें। ( )

22. बच्चों में संक्रमण को रोकने के लिए माताओं द्वारा प्रयोग किए जाने वाले सरल तरीके क्या हैं?

अ. नियमित रुप से साबुन और पानी के साथ हाथ धोना ( )

ब. अधिक तरल आहार दें। ( )

स. दैनिक स्नान और व्यायाम ( )

द. ईश्वर की अराधना करना ( )

23. बच्चों में ऊपरी श्वसन पथ के संक्रमण को रोकने में निम्नलिखित में से कौन मदद करता हैं?

अ. बच्चे को स्तनपान ना कराएं। ( )

ब. बच्चे को मौसमी फल ना दें। ( )

स. नियमित स्वास्थ्य जांच न कराएं। ( )

द. बच्चे को धूएं और धूल से बचाएं। ( )

24. ऊपरी श्वसन पथ के संक्रमण के संचरण को रोकने के निम्नलिखित में से कौन–सा तरीका सबसे अच्छा हैं?

अ. ऊपरी श्वसन पथ के संक्रमण वाले बच्चे के साथ संपर्क को कम करें। ( )

ब. छींकते और खांसते समय मुंह और नाक को ढ़कें। ( )

स. उस बच्चे को अलग करें जिसको ऊपरी श्वसन पथ संक्रमण हैं। ( )

द. बच्चे को खिलौने या भोजन साझा करने की अनुमति न दें। ( )

25. निम्नलिखित में से कौन सा उपाय बच्चे को संक्रमण से बचाने में मदद करता हैं?

अ. टीकाकरण ( )

ब. अनहेल्दी खाना ( )

स. कपड़े धोना ( )

द. मैदान में खेलना ( )

26. निमोनिया जैसे संक्रमण को रोकने के किए बच्चों में कौन सा टीका लगाया जाता हैं?

अ. बी.सी.जी. वैक्सीन ( )

ब. न्यूमोकोकल कंजुगेट वैक्सीन और न्यूमोकोकल पॉलीसैकराइड वैक्सीन ( )

स. रोटा वायरस वैक्सीन ( )

द. डी.पी.टी. वैक्सीन ( )

27. न्यूमोकोकल कंजुगेट वैक्सीन (पी.सी.वी.) टीकाकरण के लिए उपयुक्त समय कौन सा हैं?

अ. 6 सप्ताह 10 सप्ताह और 14 सप्ताह ( )

ब. 6 सप्ताह और 10 सप्ताह ( )

स. 10 महीने ( )

द. 12 महीने ( )

28. न्यूमोकोकल पॉलीसैकराइड वैक्सीन (पी.पी.वी.) टीकाकरण के लिए उपयुक्त आयु क्या हैं?

अ. 9 महीने ( )

ब. 16 महीने ( )

स. 1 साल ( )

द. 2 साल से ऊपर ( )

29. न्यूमोकोकल पॉलीसैकराइड वैक्सीन (पी.पी.वी.) किसे लगाया जाना चाहिए?

अ. बच्चे जिनकी उम्र 2 साल से ऊपर है और न्यूमोकोकल संक्रमण का खतरा हैं। ( )

ब. 65 वर्ष तक या उससे अधिक आयु का प्रत्येक व्यक्ति ( )

स. उपरोक्त दोनों ( )

द. इनमे से कोई नहीं ( )

30. न्यूमोकोकल वैक्सीन के सम्बन्ध में कौन सा कथन सही हैं?

अ. यह टीका न्यूमोकोकल बीमारी से सुरक्षा प्रदान करता हैं। ( )

ब. यह टीका तपेदिक से सुरक्षा प्रदान करता हैं। ( )

स. यह टीका चिकन पॉक्स से सुरक्षा प्रदान करता हैं। ( )

द. यह टीका मलेरिया से सुरक्षा प्रदान करता हैं। ( )

उत्तर कुंजी

1.	अ
2.	स
3.	ब
4.	अ
5.	स
6.	ब
7.	ब
8.	स
9.	अ
10.	ब
11.	ब
12.	अ
13.	द
14.	अ
15.	अ
16.	अ
17.	द
18.	ब
19.	स
20.	द
21.	अ
22.	अ
23.	द
24.	ब
25.	अ
26.	ब
27.	अ
28.	द
29.	स
30.	अ

Annexure 10 (a)

ERA UNIVERSITY

ERA COLLEGE OF NURSING, LUCKNOW

LESSON PLAN

ON

Upper Respiratory Tract Infection

GENERAL INFORMATION:

Name of the student teacher	**:**	Prabhat Kumar
Subject	**:**	Child health nursing
Topic	**:**	Upper Respiratory Tract Infection
Group	**:**	Mothers of under five children
Date	**:**	
Duration	**:**	25 minutes
Methods of teaching	**:**	Lecture Cum Discussion
AV Aids	**:**	Charts, Flash cards, Handouts, Pictures & PPT
Place	**:**	Era's Lucknow Medical College & Hospital, Lucknow
Language	**:**	Hindi
Name of supervisor	**:**	Miss Madhu Kumari Gupta
Previous knowledge of group	**:**	Some mothers have knowledge about common cold & cough.

GENERAL OBJECTIVES:

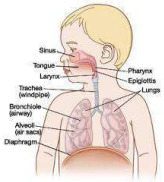
At the end of the lesson the group of mothers will be able to,

- enhance knowledge regarding upper respiratory tract infection.

SPECIFIC OBJECTIVES:

At the end of the health talk the group of mothers will be able to,

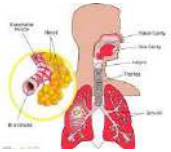
- introduce the topic
- define upper respiratory tract infection
- list out the causes & risk factors of upper respiratory tract infection
- describe the mode of transmission of upper respiratory tract infection
- enumerate the common symptoms of upper respiratory tract infection
- enlist common symptoms that indicate medical advice
- explain the types of upper respiratory tract infection
- describe the home remedies for upper respiratory tract infection
- discuss about preventive measures of respiratory tract infection in children
- summarize the topic
- conclude the topic

Sr. No.	Time	Specific Objectives	Content	Teaching-Learning Activity	A.V. Aids	Evaluation
1.	3 minutes	To introduce the topic	**Upper Respiratory Tract Infections** **Introduction** Respiratory infections in children are very common. Upper respiratory infections are one of the most frequent causes for a doctor visit with varying symptoms ranging from runny nose, sore throat, cough, to breathing difficulty, and lethargy. • Having six respiratory infections per year is normal. • Some uncomplicated respiratory infections can last up to two weeks. Although upper respiratory infections can happen at any time, they are most common in the autumn and winter months, from September until March. **The Respiratory Tract** The body consists of many system for different functions. Respiratory system is on among them which helps in breathing. Respiratory system is consisted with nose, pharynx, larynx,	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	Charts  	Structured Questionnaire

			trachea, bronchi & lungs. Respiratory system consists of two parts: • The upper respiratory tract • The lower respiratory tract **Upper Respiratory Tract** **The upper respiratory tract consists of:** ✓ The nose ✓ **The sinuses -** air-filled cavities that are found inside the cheekbones and forehead ✓ The mouth (including the tonsils) ✓ The throat ✓ **The pharynx -** Which is at the back of the throat and prevents foreign objects, such as food, falling down into the lungs ✓ The larynx or "voice box" - Which is the part of the throat that contains the vocal cords **Lower respiratory tract** **The lower respiratory tract consists of:** ✓ **The trachea (windpipe) -** The tube that connects the throat to the lungs			

			✓ **The bronchi -** The two branches that the trachea divides into as it enters the lungs ✓ **Bronchioles -** The tiny airways that are found throughout the lungs ✓ **The alveoli -** Tiny air sacs at the end of the bronchioles Nose is the inlet & outlet for inhaled & exhaled air. Pharynx, larynx, trachea and bronchi are the passages for air to reach to lung tissue which is formed by tiny alveoli where the gaseous exchange takes place. Lungs are paired cone shaped organs in the thoracic cavity, which are covered & protected from two layers of serous membrane called as pleural membranes. The air from environment enters through the nose and reaches alveoli during breathing. Then the oxygen is exchanged from alveoli to blood in turn carbon di oxide is exchanged from blood to alveoli, which is then expelled out of respiratory system during exhalation. The specialized cells of bronchial tree produces substance called as mucus which helps to moisten the air and trap the foreign			

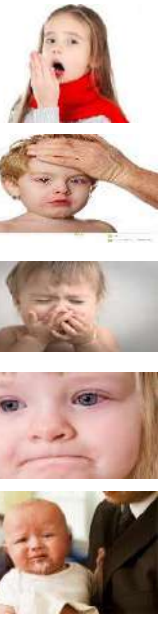
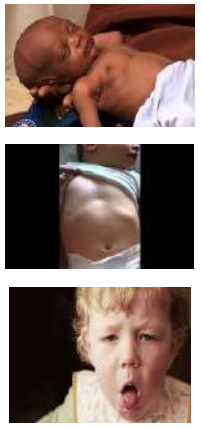
			bodies present in the air. Mucus is expelled continuously from our lungs by the function of cilia (Hair like projections). **Common upper respiratory tract infections (URTIs) include:** • The common cold • **Sore throat** - Usually due to an infection of the pharynx (pharyngitis) • **Tonsillitis** - Infection of the tonsils (Inflammation of the tonsils) • **Sinusitis** - Infection of the sinuses (Inflammation of the sinuses) • **Laryngitis** - Infection of the larynx (Inflammation of the larynx) **Common lower respiratory tract infections (LRTIs) include:** • **Bronchitis -** Infection of the bronchi (Inflammation of bronchi) • **Pneumonia -** Infection of the bronchioles and alveoli (Inflammation & consolidation of lungs parenchyma. There are also certain types of infection, such as flu, that can affect both the upper and lower respiratory tract.			

2.	2 minutes	To define upper respiratory tract infection	**Definition** • An upper respiratory tract infection (URTI) is an infectious process of any of the components of the upper airway. or • Upper respiratory tract infection (URTI) are an acute infection of upper part of the respiratory tract and related structures including nose, sinuses, throat, pharynx and larynx.	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	Pictures  	Structured questionnaire
3.	2 minutes	To list out the causes & risk factors of upper respiratory tract infection	**Causes of Upper Respiratory Tract Infection** An upper respiratory tract infection is generally caused by the direct invasion of the inner lining (mucosa or mucus membrane) of the upper airway by the culprit virus or bacteria. Both viruses and bacteria can cause acute URIs. **Risk factors for upper respiratory tract infection** ➢ Low birth weight ➢ Malnourished or non-breast fed children ➢ Low socio-economic and overcrowded living ➢ Intense indoor smoke, dust or air pollution	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	Flash cards    	Structured questionnaire

			➢ Partial immunization ➢ Early weaning ➢ Lack of ventilation **Some common risk factors for upper respiratory infection are:** ➢ When someone sick sneezes or coughs without covering their nose and mouth. Droplets containing the viruses are sprayed into the air. ➢ When people are in a closed-in area or crowded conditions. People who are in hospitals, institutions, schools, and day care centers have increased risk because of close contact. ➢ During the autumn and winter (September to March), when people are more likely to be inside. ➢ When humidity is low. Indoor heating favors survival of many viruses that cause upper respiratory tract infection. ➢ Weakened immune system. ➢ Poor hand washing after contact with an individual with upper respiratory infection		    	

			➢ Contact with groups of individuals in a closed setting, such as, traveling, tours. ➢ Smoking or second-hand smoking (may impair mucosal resistance and destroy the cilia) **Common Myth about disease occurrence** Respiratory infections and diseases in children are caused by any evil spirit and punishment of god.			
4.	2 minutes	To describe the mode of transmission of upper respiratory tract infection	**Mode of Transmission** The respiratory tract infection can be transmitted in many ways such as **1. Air borne or droplet infection** The infection spreads through air where the droplet of infected person's saliva or nasopharyngeal secretion spreads in the air while coughing & sneezing, which causes infection in healthy child when the healthy child inhales the infected air. Ex- During hospitalization, playing with other children **2. Direct physical contact** The infection spreads from person to person through direct physical contact.	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	PPT  	Structured questionnaire

			Ex- When mother is suffering with severe respiratory infection through physical contact it is transferred to baby. **3. Fomites** Infection spreads through objects used by the infected child/person like feeding bottles, nipples, spoon, towels, cloths, linens etc.			
5.	2 minutes	To enumerate the common symptoms of respiratory tract infection	**Clinical Manifestations of Upper Respiratory Tract Infection** o Runny nose (rhinorrhea), o Nasal discharge (may change from clear to white to green) o Sneezing, o Cough o Fever (more common in children). o Nasal congestion, o Sore or scratchy throat, o Painful swallowing (odynophagia), o Anorexia (loss of appetite) o Irritability & decreased sleeping o Malaise	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	PPT     	Structured questionnaire

			Other less common symptoms may include ○ Foul breath ○ Reduced ability to smell (hyposmia) ○ Headache ○ Shortness of breath ○ Sinus pain ○ Itchy and watery eye (conjunctivitis) ○ Nausea ○ Vomiting ○ Diarrhea ○ Body aches.			
6.	2 minutes	To enlist common symptoms that indicate medical advice	**Common symptoms that may cause to seek medical advice** • Breathing fast or breathing rapidly or difficulty in breathing. • Retractions (seeing a deeper outline of the ribcage or ribs than what is normal) • Coughing (frequent; vomiting may occur with it) • Loss of Activity (not playing or being usual self)	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	PPT 	Structured questionnaire

			• Talking (infants and toddlers are quiet, not making normal sounds. Older children are unable to talk normally, having to catch breaths between words) • Wheezing (a high-pitched whistling sound heard when breathing out) • Stridor (a harsh, raspy vibrating sound heard when breathing in. As it progresses, it can sound like a seal, particularly with coughing) • Fever • If child refuses to drink anything for a prolonged period. • Behavior changes including irritability or lethargy. • Parents should call the health care providers, if the following symptoms develop: - Fever greater than 101^0F last 3 days. - Nasal congestion does not improve over the courses of 14 days. - Eyes become red or develop yellow discharge. - If there are sign & symptoms of ear infection like pain, ear pulling.		       	

7.	5 minute	To enumerate the types of respiratory tract infection	**Some types of respiratory tract infection** **Common cold** There are at least 200 separate viruses that can cause colds, so unfortunately no cure is on the horizon. • Colds can occur at any age. • There is a wide range of cold symptoms, depending on how severe the cold is. • Colds are spread through direct contact with respiratory secretions. • Colds last about seven to 10 days on average, though the cough can last three weeks. Fever shouldn't last more than three days. • Complications include ear infections, sinus infections, pneumonia, and eye infections. **Sore throat** Most sore throats, including the sore throat found in mononucleosis, are caused by viruses and accompany a cold. Viral sore throats generally last about three to five days. Strep usually responds to antibiotics within 24 hours.	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	Pictures & PPT  	Structured questionnaire

			Mononucleosis generally lasts about a week but can cause symptoms for two to four weeks. **Treatment for symptoms includes:** • Gargling with salt water • A soft bland diet **Croup** • Croup is a disease seen mostly in toddlers. It is caused by a virus, and lasts about five to six days. • The classic symptom is hoarseness with a cough that sounds like a seal or a dog. It is usually part of a cold. Stridor develops later. Symptoms are generally worse at night. • Children are quite contagious. • There is no specific treatment. The child should be kept calm. Cough medicines are not helpful. Mist, cool or warm, can be quite helpful. **Sinus infection** Sinus infections are often signaled by: • Pain and pressure in the face • Thick nasal discharge		  	

			• Post-nasal drip • Fever • Bad breath • Nausea, and • Chronic (long-lasting) cough. Sinus infections are not contagious. Saline nasal sprays are helpful for opening sinus passages. Antibiotics may be prescribed if indicated. Consult child's physician before giving any medication to child.			
8.	2 minutes	To describe the home remedies for upper respiratory tract infection	**Home remedies for Upper Respiratory Tract Infection** There are several methods that can simply be applied at home for relief of symptoms of upper respiratory tract infection. Moist warm air can help soothe the oral and nasal passages that become more irritated with dry air. This can make breathing easier and nasal secretions looser and easier to discharge. Some simple ways to do this are: • Making steam in the shower by turning on the hot water (without going under it) and breathing the steamed air	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	PPT	Structured questionnaire

			• Steam inhalation by hot water • Drinking warm beverages (hot chocolate, warm milk) • Adequate hydration with water, juices, and non-caffeinated drinks can thin nasal secretions and replace the fluid losses. • Using a vaporizer to create humidity in the room and • Avoid cold, dry air if possible. • Giving tepid sponge to treat fever. • Maintenance of personal hygiene • Arrangement of play materials. • Provision of bed rest with comfortable position and head up. • Nasal saline (salt water) can help with symptoms of nasal congestion. • Applying a warm pack (a warm well towel or wash cloth) to the face may also be used to treat symptoms of nasal congestion. This can be repeated every few hours as needed to relieve to the symptoms.		    	

			• Salt water gurgles and lozenges may reduce throat irritation and dryness and can alleviate the symptoms of throat symptoms. • Cough can be suppressed by limiting exposure to irritants, such as, cold weather, cigarette smoke, dust, and pollution. Sleeping in a semi-upright position may be helpful at time to reduce cough.			
9.	2 minutes	To discuss about preventive measures of respiratory tract infection in children	**Preventive measures of Upper Respiratory Tract Infection** There are several measures that can reduce the risk of infections in general. Smoking cessation, reducing stress, adequate and balanced diet, and regular exercise are all measures that can improve the immune system and reduce the overall risk of infections. Breastfeeding also helps strengthen the immune system of infants by transferring the protective antibodies from the mother's milk to the baby. Other preventive measures to diminish the risk of spread of upper respiratory infections are: ▪ Personal hygiene controls respiratory tract infections among children so always keep the child clean & warm.	**Teacher's activity –** Educating the group **Learner's activity –** Listening, questioning	PPT	Structured questionnaire

			▪ Hand washing is especially encouraged during the cold seasons (autumn and winter) or handling others with the infection ▪ Wash hands frequently with soap & water especially before touching an infants. Hands should ideally be wet with water and plain or antimicrobial soap and rubbed together for 15 to 30 seconds. Hands should be rinsed thoroughly and dried with a single use towel. ▪ Use alcohol-based or antiseptic hand rub. Example- Dettol, savlon etc. ▪ Maintenance of warm, well ventilated environment. ▪ Avoiding synthetic clothing and exposure of skin. ▪ Special protection during weather variation to prevention cold. ▪ Reducing contact with child and other people who may have the infection (people may carry and spread the virus a few days before they have symptoms and a few days after their symptoms have resolved) ▪ Cover the mouth and nose while coughing or sneezing.		  	

			▪ Children who are sick should not be sent to day care/school. ▪ Do not allow the children to share toys, food and utensils during upper respiratory tract infection. ▪ Isolate the child during respiratory tract infection. ▪ Proper cleaning of common objects that are touched by individuals who may be infectious such as, telephones, refrigerator door, computers, stair railings, door handles, etc. ▪ Use household cleaner, such as Phenol that kills bacteria. ▪ Avoid smoking in the child's room because this increases the risk of respiratory illness. ▪ Avoid using fomites of infected child. ▪ Immunization to be completed as per schedule to reduce the risk of respiratory tract infection. ▪ A yearly vaccination for influenza virus is recommended for all children older than 6 months. Household contacts of children and out of home caregivers of children.		  	

			▪ Vaccinations against Hemophilus influenza and Streptococcus pneumonia in the first year of life in children. ▪ Pneumococcal conjugate vaccination and Pneumococcal polysaccharide vaccination ▪ Provide safe drinking water for keeping away cold-cough and throat infections. ▪ Drinking fluids is very important because fever causes the body to lose fluid faster. Lung secretions will be thinner and easier to clear when the patient is well hydrated, so fluid should not be restricted when child suffers with fever & cough. ▪ Exclusive breastfeeding during first six month of child's age reduces the incidence of respiratory tract infections. ▪ Do not stop giving breast feeding during respiratory tract infections in infancy period. ▪ Provide seasonal fruits and whole food to children to enhance immunity power if the child is able to take food. ▪ Use of home remedies for cough and cold, e.g. tulsi, honey, zinger, hot drinks etc.		    	

			▪ Nourish the child with good nutrients, vitamins and minerals. ▪ Avoid long exposure to air pollution from heavy traffic. ▪ Regular health checkup for detection of deviation from normal health and growth and development, nutritional status and associated problems. ▪ Follow the instructions given by the health worker regarding care of children. ▪ Avoiding harmful practices related to child care during illness or in wellness. **Prevention** ➢ Good hygiene ➢ Vaccination **Simple ways to stop infection** Help to prevent the spread of infectious diseases by: • Regularly washing hands with soap and running water, particularly before preparing and eating food and after blowing nose • Coughing and sneezing into a tissue then throwing it away • Covering mouth when sneezing or coughing		  	

			• Keeping hands away from eyes, nose and mouth • Avoiding sharing cups, glasses and cutlery when eating or drinking • Keeping household surfaces clean. **Vaccinations** There are currently three vaccines available - two for pneumonia and one for the flu - that can provide protection against these two respiratory tract infections. **Pneumococcal conjugate vaccine (PCV)** The pneumococcal conjugate vaccine is administered to babies under the age of two years. The PCV13 vaccine for infants protects them against 13 types of harmful bacteria that are responsible for causing pneumonia. The dose is given at 6 weeks, 10 weeks & 14 weeks to the child. **Pneumococcal polysaccharide vaccine (PPV)** Those aged over 2 years should be vaccinated with PPV23. **Haemophilus influenza** This vaccine is used to prevent haemophilus influenza infection.		  	

			Flu vaccine Flu vaccines cause antibodies to develop in the body about two weeks after vaccination. These antibodies provide against infection with the viruses that are in the vaccine. The seasonal flu vaccine protects against the influenza viruses.			

10.	2 minute	To summarize the topic	**Summary** The respiratory tract is much more vulnerable to infection than other parts of the body. Respiratory tract infections are more common during the winter. This is possibly due to the fact that during the winter month people are more likely to stay inside and in close contact with each other. Children tend to get more upper respiratory tract infections than adults. This is because they have not yet built up immunity to the many viruses that can cause colds.			
11.	1 minute	To conclude the topic	**Conclusion** • Upper respiratory infections (URIs) are one of the most common reasons for doctor visits. • Upper respiratory infections are the most common illness resulting in missed work or school. • Upper respiratory infections can happen at any time, but are most common in the autumn and winter. • Simple techniques, such as, proper hand washing and covering face while coughing or sneezing, may reduce the spread of upper respiratory infections.			

Bibliography

- Hockenberry MJ, Wilson D, Wong's. Essentials of pediatric nursing. 8th Edition. Mosby Elsevier; 2009. P - 755-76
- Ghai OP, Gupta P, Paul VK. Essential pediatrics. 6th Edition. New delhi; CBS publishers; 2004. P - 352-67
- Sharma R. Essentials of pediatric nursing. 1st Edition. New delhi; Jaypee brothers medical publishers (p) ltd; 2013. P- 257-65
- Data P. Textbook of pediatric nursing. 4th Edition. New delhi; Jaypee brothers medical publishers (p) ltd; 2018. P- 242-5
- Yadav M. A textbook of child health nursing. 2nd Edition. Jalandhar; S. vikas & company (medical publishers); 2017 P- 440
- Gupte S. The short textbook of pediatrics. 12th Edition. New delhi; Jaypee brothers medical publishers (p) ltd; 2016. P- 353
- Shakur S. Illustrated textbook of pediatrics. 2nd Edition. New delhi; Jaypee brothers medical publishers (p) ltd; 2015. P-313-4
- Disease control priorities project in developing countries. World Health Organization- publication; 2006. P - 16-8
- Respiratory tract infection. Health Service Executives; 2018
  Available on
  https://www.hse.ie/eng/search?q=UPPER%20RESPIRATORY%20TRACT%20INFECTION
- https://www.nacpatients.org.uk/content/tips-avoid-respiratory-infections
- Jerry R. Siamak N. William C. Upper Respiratory Tract Infection (URTI). Web MD; 2018
  Available on
  https://www.medicinenet.com/upper_respiratory_infection/article.htm#what_is_the_outlook_for_a_patient_suffering_from_an_upper_respiratory_infection

- Childhood respiratory infection and other illnesses. 2014
  Available on:
  https://my.clevelandclinic.org/health/articles/4022-childhood-respiratory-infections-and-other-illnesses
- Paul. SP, Wilkinson R, Routley C. Management of respiratory tract infection in children. Dovepress. Nursing research & reviews; 2014. 4. P- 135-48
  Available on:
  https://www.dovepress.com/management-of-respiratory-tract-infections-in-children-peer-reviewed-fulltext-article-NRR
- Brenda L. Tesini. Overview of viral respiratory tract infection in children. MSD Mannual for the consumer. 2018
  Available on:
  https://www.msdmanuals.com/home/children-s-health-issues/viral-infections-in-infants-and-children/overview-of-viral-respiratory-tract-infections-in-children
- Dr. Shweta Gupta. My upchar. 2018
  Available on:
  https://www.myupchar.com/disease/upper-respiratory-tract-infection-urti
- First cry parenting 2019
  Available on:
  https://parenting.firstcry.com

Annexure 10 (b)

एरा विश्वविद्यालय

एरा कॉलेज ऑफ नर्सिंग, लखनऊ

ऊपरी श्वसन पथ संक्रमण

पर

पाठ योजना

सामान्य जानकारी

छात्र शिक्षक का नाम	:	प्रभात कुमार
विषय	:	बाल स्वास्थ्य नर्सिंग
विषय	:	ऊपरी श्वसन पथ संक्रमण
समूह	:	पॉच वर्ष से कम उम्र के बच्चों की माताएं
दिनांक	:	
अवधि	:	25 मिनट
शिक्षण के तरीके	:	व्याख्यान सह चर्चा
ए वी एड्स	:	चार्ट, फ्लैश कार्ड, हैंडआउट, चित्र और पावर प्वाइंट्स
स्थान	:	एरा लखनऊ मेडिकल कॉलेज एवं अस्पताल, लखनऊ
भाषा	:	हिन्दी
पर्यवेक्षक का नाम	:	मिस मधु कुमारी गुप्ता
समूह का पिछला ज्ञान	:	कुछ माताओं को सामान्य सर्दी और जुकाम के बारे में जानकारी हैं।

सामान्य उद्देश्य

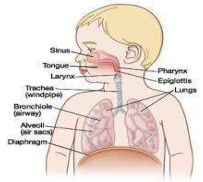
पाठ के अंत में माताओं का समूह सक्षम हो जाएगा

- ऊपरी श्वसन पथ संक्रमण के बारे में ज्ञान में वृद्धि के लिए।

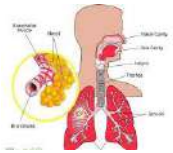
विशिष्ट उद्देश्य

स्वास्थ्य वार्ता के अंत में माताओं का समूह सक्षम हो जाएगा

- विषय का परिचय देने के लिए
- ऊपरी श्वसन पथ संक्रमण को परिभाषित करने के लिए
- ऊपरी श्वसन पथ संक्रमण के कारणों और जोखिम कारको की सूची बनाने के लिए
- ऊपरी श्वसन पथ संक्रमण के संचरण के विधि का वर्णन करने के लिए
- ऊपरी श्वसन पथ संक्रमण के सामान्य लक्षणें को सूचीबद्ध करने के लिए
- सामान्य लक्षणों को सूचीबद्ध करने के लिए, जो चिकित्सा सलाह का संकेत देते हैं
- ऊपरी श्वसन पथ संक्रमण के प्रकारों की व्याख्या करने के लिए
- ऊपरी श्वसन पथ संक्रमण के घरेलू उपचार का वर्णन करने के लिए
- बच्चों में ऊपरी श्वसन पथ संक्रमण के निवारक उपायों के बारे में चर्चा करने के लिए
- विषय का सार देने के लिए
- विषय समाप्त करने के लिए

क्रम संख्या	समय	विशिष्ट उद्देश्य	पाठ्य सामग्री	गतिविधि	ए.वी. एड्स	मूल्यांकन
1.	3 मिनट	विषय का परिचय देने के लिए	**ऊपरी श्वसन पथ संक्रमण** **परिचय** बच्चो में श्वसन संबंधी संक्रमण बहुत आम हैं। श्वसन पथ संक्रमण एक डॉक्टर के दौरे के सबसे लगातार कारणों में से एक हैं, जिसमें बहती नाक से लेकर अलग–अलग लक्षण दिखाई देते हैं जैसे – गले मे खराश, खॉसी या सॉस लेने में कठिनाई। • प्रतिवर्ष छह संक्रमण सामान्य है। • कुछ अपूर्ण श्वसन संक्रमण दो सप्ताह तक रह सकते हैं। हालाकिं श्वसन पथ के संक्रमण किसी भी समय हो सकते हैं, लेकिन सितंबर से मार्च तक शरद ऋतु और सर्दियों के महीनों में सबसे आम हैं। **श्वसन पथ** शरीर में विभिन्न कार्यों के लिए कई प्रणाली शामिल हैं। श्वसन प्रणाली उनमें से एक है, जो सॉस लेने में मदद करती हैं। श्वसन प्रणाली में नाक ग्रसनी स्वरयंत्र श्वासनली ब्रांकाई और दोनो फेफड़े शामिल हैं। श्वसन प्रणाली में दो भाग होते है– → ऊपरी श्वसन पथ → निचला श्वसन पथ **ऊपरी श्वसन पथ** ऊपरी श्वसन पथ में निम्नलिखित अंग शामिल है– ✓ **नाक** ✓ **साइनस –** हवा से भरी गुहाएं जो गाल की हड्डियों और माथे के अंदर पायी जाती हैं। ✓ मुँह, (टॉन्सिल सहित)	**शिक्षक की गतिविधि** समूह को शिक्षित करना **शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	चार्ट  	संरचित प्रश्नावली

			✓ गला ✓ **ग्रसनी –** जो गले के पीछे होती है और बाहरी वस्तुओं जैसे– भोजन आदि को फेफड़ो में जाने से रोकती हैं। ✓ स्वरयंत्र **निचला श्वसन पथ** निचले श्वसन पथ में निम्नलिखित अंग शामिल हैं– ✓ श्वसन नली जो दोनो फेफड़ो को गले से जोड़ता हैं। ✓ **श्वसनी–**श्वसन नली दो शाखाओं में विभाजित हो जाती हैं,जो फेफड़ो में प्रवेश करती हैं। ✓ छोटे वायुमार्ग जो पूरे फेफड़ो में पाये जाते है, जिन्हे ब्रांकियोल्स या कूपिकीय वाहिनियॉ कहते हैं। ✓ एल्योलायी (कूपिकाए) – कूपिकीय वाहिनियों के अंत में छोटे– छोटे हवा की थैलिया नाक, अंदर और बाहर निकलने वाली हवा के लिए इनलेट और आउटलेट हैं। ग्रसनी, स्वरयंत्र, श्वास नली, और श्वसनी, फेफड़ो के ऊत्तको तक पहुंचने के लिए हवा का मार्ग हैं जो कि छोटे वायुकोशकीय द्वारा बनाई जाती है जहां गैसीय विनिमय होता है। फेफड़े वक्ष गुहा मे स्थितं शंकु के आकार के अंग होते हैं, जो फुफ्फुस झिल्ली के रूप में कहे जाने वाले सीरस झिल्ली की दो परतो से ढ़के और संरक्षित होते हैं। वातावरण से हवा नाक के माध्यम से प्रवेश करती है और श्वसन के दौरान कूपिकाओं तक पहुंचती है, जहॉ ऑक्सीजन और कार्बन डाई आक्साइड का आदान–प्रदान होता है जिसे सॉस छोड़ने के दौरान श्वसन प्रणाली से बाहर निकाल दिया जाता हैं। श्वसनी की शाखाओं की विशेष कोशिकाएं बलगम का उत्पादन करती हैं जो हवा को नम करने और हवा में मौजूद बाहरी पदार्थों को बाहर निकालने में मदद करती हैं। सामान्य ऊपरी श्वसन पथ संक्रमण निम्नलिखित है–			

			• जुकाम • गले में खराश • टॉन्सिलाइटिस – टॉन्सिल का संक्रमण या सूजन • साइनसाइटिस – साइनस का संक्रमण या सूजन • लैरिंजाइटिस – गले का संक्रमण या सूजन सामान्य निचली श्वसन पथ संक्रमण निम्नलिखित है– **ब्रांकाइटिस –** ब्रांकाई का संक्रमण या सूजन **निमोनिया –** फेफड़ो के पैरेन्काइमा की सूजन या प्रदाह कुछ संक्रमण जैसे कि फ्लू ऊपरी और निचले दोनो श्वसन पथ को प्रभावित कर सकते हैं।			
2.	2 मिनट	ऊपरी श्वसन पथ संक्रमण को परिभाषित करने के लिए	**परिभाषा** • एक ऊपरी श्वसन पथ संक्रमण, ऊपरी वायुमार्ग के किसी भी घटक की एक संक्रामक प्रक्रिया हैं। या • ऊपरी श्वसन पथ संक्रमण, श्वसन पथ के ऊपरी हिस्से जैसे नाक, साइनस, गले, ग्रसनी और स्वरयंत्र से संबंधित संरचनाओं का एक तीव्र संक्रमण हैं।	**शिक्षक की गतिविधि** समूह को शिक्षित करना **शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	चित्र  	संरचित प्रश्नावली
3.	2 मिनट	ऊपरी श्वसन पथ संक्रमण के कारणों और जोखिम कारको	**ऊपरी श्वसन पथ संक्रमण के कारण** ऊपरी श्वसन पथ संक्रमण आमतौर पर वायरस या बैक्टीरिया के प्रत्यक्ष आक्रमण के कारण होता हैं। वायरस और बैक्टीरिया दोनो तीव्र यू आर आई उत्पन्न कर सकते हैं।	**शिक्षक की गतिविधि** समूह को शिक्षित करना	फ्लैश कार्ड्स 	संरचित प्रश्नावली

		की सूची बनाने के लिए	**ऊपरी श्वसन पथ संक्रमण के जोखिम कारक** ➢ जन्म के समय शिशु के वजन में कमी ➢ कुपोषण या बच्चों को स्तनपान न कराना ➢ कम सामाजिक–आर्थिक स्थिति और भीड़–भाड़ वाला जीवन ➢ प्रदूषण ➢ आंशिक टीकाकरण ➢ जल्दी दूध छुड़ाना ➢ वेंटिलेशन की कमी ➢ धूम्रपान **ऊपरी श्वसन पथ संक्रमण के कुछ अन्य जोखिम कारक निम्नलिखित है–** ➢ जब कोई व्यक्ति अपनी नाक और मुँह ढ़के बिना खॉसता या छींकता हैं, तो वायरस युक्त बूंदों को वातावरण में फैल जाते हैं। ➢ जब लोग किसी बंद क्षेत्र या भीड़ वाली स्थिति में होते हैं। जो लोग अस्पतालों, संस्थानों, स्कूलों और डे केयर सेंटरों में हैं, उन्होने निकट संपर्क के कारण जोखिम बढ़ा दिया हैं। ➢ शरद ऋतु के दौरान और सर्दियों के दौरान मार्च से सितंबर तक जब लोगो को घर के अंदर होने की संभावना होती हैं। ➢ जब आर्द्रता कम हो। घर के अंदर की गर्मी कई वायरस के अस्तित्व को बनाए रखता है जो ऊपरी श्वसन पथ संक्रमण के संक्रमण का कारण बनते हैं। ➢ कमजोर प्रतिरक्षा प्रणाली। ➢ ऊपरी श्वसन पथ संक्रमण वाले व्यक्ति के साथ संपर्क में आने के बाद हाथ नहीं धोना। ➢ एक बंद जगह में व्यक्तियों के समूहों को सम्पर्क जैसे – यात्रा, पर्यटन।	**शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	      	

			➢ धूम्रपान करना या उसके सम्पर्क में आना क्योंकि धूम्रपान सीलिया को नष्ट करता हैं। **रोग घटना के बारे में आम मिथक** बच्चों में ऊपरी श्वसन पथ संक्रमण और बीमारिया किसी बुरी आत्मा और भगवान की सजा के कारण होती हैं।			
4.	2 मिनट	ऊपरी श्वसन पथ संक्रमण के संचरण के विधि का वर्णन करने के लिए	**संचरण की विधि** ऊपरी श्वसन पथ संक्रमण कई तरीकों से फैलता है– **1 वायु जनित या छोटी बूंद द्वारा संक्रमण** संक्रमण हवा से फैलता है जहां संक्रमित व्यक्ति की लार की बूंदे खॉसते और छींकते समय हवा में फैल जाती हैं, स्वस्थ बच्चे में संक्रमण का कारण बनता हैं। जैसे– अस्पताल में भर्ती होने के दौरान, अन्य बच्चों के साथ खेलना। **2 प्रत्यक्ष शारीरिक संपर्क** वह संक्रमण प्रत्यक्ष शारीरिक संपर्क के माध्यम से एक व्यक्ति से दूसरे व्यक्ति में फैलता है। जैसे– यदि मॉ को संक्रमण हैं, तो संक्रमण बच्चे को फैल सकता हैं। **3 कपड़े या बर्तन साझा करने से ;फोमिटिज द्वारा** संक्रमित बच्चे या व्यक्ति द्वारा उपयोग की जाने वाली वस्तुओं जैसे– बोतल, चम्मच, तौलिये, या कपड़े इत्यादि के माध्यम से संक्रमण फैलता हैं।	**शिक्षक की गतिविधि** समूह को शिक्षित करना **शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	पावर प्वाइन्ट्स   	संरचित प्रश्नावली
5.	2 मिनट	ऊपरी श्वसन पथ संक्रमण के सामान्य लक्षणों को सूचीबद्ध करने के लिए	**ऊपरी श्वसन पथ के संक्रमण के लक्षण** ○ बहती नाक ○ नाक से पानी निकलना, सफेद से हरे रंग का हो सकता है। ○ छींक आना	**शिक्षक की गतिविधि** समूह को शिक्षित करना	पावर प्वाइन्ट्स  	संरचित प्रश्नावली

			○ खॉसी आना ○ बुखार आना ○ बंद नाक ○ गले में खराश ○ निगलने मे दर्द होना ○ भूख में कमी होना या भूख न लगना ○ चिड़चिड़ापन और नींद कम होना ○ थकान कुछ अन्य लक्षण हैं– ○ दूर्गधयुक्त श्वास ○ सूंघने की क्षमता में कमी ○ सिर में दर्द ○ साइनस का दर्द ○ आंखों में खुजली होना और पानी आना ○ जी मिचलाना ○ उल्टी होना ○ दस्त ○ शरीर में दर्द	**शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	      	
6.	2 मिनट	सामान्य लक्षणों को सूचीबद्ध करने के लिए, जो चिकित्सा	**<u>लक्षण जिसमें चिकित्सक की सलाह लेना जरूरी है–</u>** • तेजी से सांस लेना • चिड़चिड़ापन या सुस्ती सहित व्यवहार में परिवर्तन • खॉसी और बुखार • अगर बच्चा कुछ भी खाने या पीने से मना करें	**शिक्षक की गतिविधि** समूह को शिक्षित करना	पावर प्वाइन्ट्स  	संरचित प्रश्नावली

		सलाह का संकेत देते हैं	• यदि निम्न लक्षण दिखाई दे तो माता–पिता को तुरन्त डॉक्टर से सलाह लेना चाहिए– . पिछले 3 दिनों में 101^{0} से अधिक बुखार दिखाई दें। . 3 से 14 दिनों में सर्दी – जुकाम सही न हो या नाक बन्द हो। . आंखे लाल हो जाती हैं या पीले रंग का पदार्थ निकलता हो। . यदि कान में संक्रमण के लक्षण दिखाई दे रहे हों जैसे – कान में दर्द या कान खींचना।	**शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	  	
7.	5 मिनट	ऊपरी श्वसन पथ संक्रमण के प्रकारों की व्याख्या करने के लिए	**<u>ऊपरी श्वसन पथ संक्रमण के प्रकार</u>** • सामान्य जुकाम • गले मे खरास • क्रुप • साइनस का इन्फेक्शन **<u>सामान्य जुकाम</u>** कम से कम 200 अलग–अलग वायरस हैं जो जुकाम का कारण बन सकते हैं दूर्भाग्य से इसका कोई इलाज नहीं हैं। • जुकाम किसी भी उम्र में हो सकता हैं। • ठंड के लक्षणों की एक विस्तृत श्रृंखला है, यह इस बात पर निर्भर करता हैं कि सर्दी कितनी गंभीर हैं। • सांस के स्त्राव के सीधे संपर्क में आने से सर्दी फैलती हैं। • सर्दी औसतन 7–10 दिनों तक रहती है, हालांकि खांसी तीन सप्ताह तक रह सकती हैं बुखार तीन दिनों से अधिक नहीं रहना चाहिए। • जटिलतओं में कान में संक्रमण, साइनस संक्रमण, निमोनिया और नेत्र शामिल हैं।	**शिक्षक की गतिविधि** समूह को शिक्षित करना **शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	चित्र और पावर प्वाइन्ट्स 	संरचित प्रश्नावली

			<u>गले में खरास</u> मोनोंन्यूक्लिओसिस में पाए जाने वाले गले में खराश सहित ज्यादातर गले में खराश का कारण वायरस और ठंडी चीजे होती हैं। गले में खराश आमतौर पर तीन से पांच दिनों तक रहती हैं। स्ट्रेप आमतौर पर 24 घंटे के भीतर एंटीबायोटिक दवाओं द्वारा प्रभाविह होता हैं। मोनोन्यूक्लिओसिस आमतौर पर एक सप्ताह तक रहता है, लेकिन दो से चार सप्ताह तक लक्षण दिखाई दे सकता हैं। लक्षणों के उपचार में शामिल हैं– • नमक के पानी से गरारे करना • हल्का नर्म खाना **<u>क्रूप</u>** • क्रूप एक बीमारी है जो ज्यादातर टॉडलर्स में देखी जाती हैं। यह एक वायरस के कारण होता है, और लगभग पांच से छह दिनों तक रहता हैं। • शुरुआती लक्षण खॉसी के साथ आवाज भारी होना है, जो एक कुत्ते की आवाज की तरह लगता हैं। यह आमतौर पर ठंड का हिस्सा हैं। स्ट्रीडोर बाद में बिकसित होता हैं। लक्षण आमतौर पर रात में बद्तर होते हैं। • बच्चे काफी संक्रामक होते हैं। • कोई विशिष्ट उपचार नहीं हैं। बच्चे का शांत रखा जाना चाहिए। खांसी की दवाएं सहायक नहीं हैं। धुंए, ठंड या गर्म काफी मददगार हो सकता हैं। **<u>साइनस का संक्रमण</u>** साइनस संक्रमण अक्सर संकेत देते हैं– • चेहरे पर दर्द और दबाब • बहती नाक • बुखार • सांसो की बदबू		    	

			• मतली और • पुरानी, लंबे समय तक चलने वाली खांसी। साइनस संक्रमण संक्रामक नहीं हैं। साइनस मार्ग खोलने के नमक पानी का स्प्रे सहायक होते हैं। बच्चे को चिकित्सक की सलाह से बच्चे को दवा दें।			
8.	2 मिनट	ऊपरी श्वसन पथ संक्रमण के घरेलू उपचार का वर्णन करने के लिए	**<u>ऊपरी श्वसन पथ संक्रमण के लिए घरेलू उपचार</u>** कई तरीके हैं जो ऊपरी श्वसन पथ संक्रमण के लक्षणो से राहत के लिए घर पर किए जा सकते है। नम गर्म हवा मौख्कि और नासिका मार्ग को शांत करने में मदद की करती हैं। इससे सांस लेना आसान और नाक से स्त्राव शिथिल हो जाता है, और निर्वहन आसान हो जाता हैं। ऐसा करने के कुछ तरीके हैं– ▪ भाप देना ▪ पर्याप्त मात्रा में द्रव दे तथा फलो का रस और गैर कैफिन युक्त पेय प्रदान करें। ▪ गर्म पेय प्रदान करें। (गर्म चॉकलेट एवं गर्म दूध) ▪ यदि संभव हो तो ठंडी और शुष्क हवा से बचें। ▪ बुखार को कम करने के लिए टेपिड स्पंज दें। ▪ व्यक्तिगत स्वच्छता का रखरखाव ▪ खेल सामग्री की व्यवस्था। ▪ आरामदायक स्थिति प्रदान करें, और सिरहाना उठाकर बच्चे को सुलाएं। ▪ साइनस मार्ग खोलने के नमक पानी का स्प्रे सहायक होते हैं। ▪ नमक के पानी का गार्गल ▪ सर्दी जुकाम को कम करने के लिए सिगरेट के धूएं, धूल, प्रदूषण के संपर्क में आने से बचाना चाहिए और खांसी को कम करने के लिए फाउलर्स स्थिति में सुलाना चाहिए।	**शिक्षक की गतिविधि** समूह को शिक्षित करना **शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	पावर प्वाइन्ट्स      	संरचित प्रश्नावली

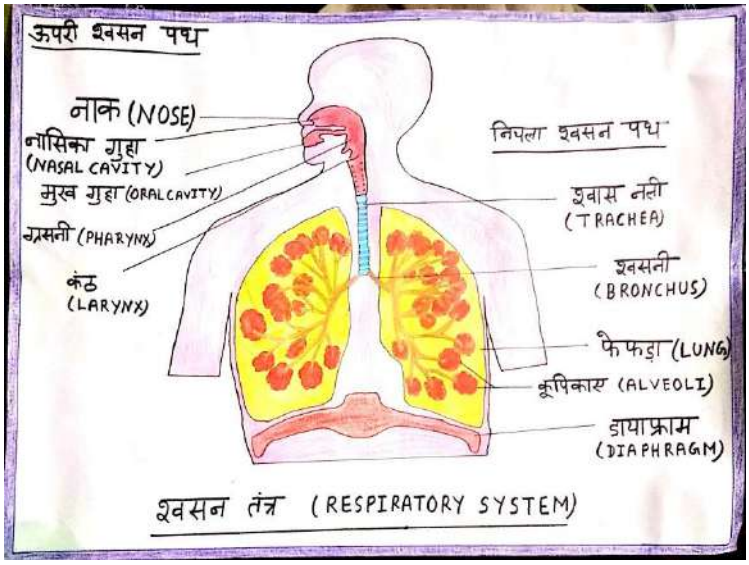
9.	2 मिनट	बच्चों में ऊपरी श्वसन पथ संक्रमण के निवारक उपायों के बारे में चर्चा करने के लिए	**<u>ऊपरी श्वसन पथ संक्रमण से बचाव के उपाय</u>** ऐसे कई उपाय है, जो सामान्य रुप से संक्रमण के जोखिम को कम कर सकते हैं। ❖ बच्चों को साफ और गर्म रखें। ❖ शिशुओं को छूने से पहले साबुन और पानी से हाथ बार–बार धोंयें। ❖ अल्कोहल आधारित प्रक्षालक का प्रयोग करें। ❖ गर्म और हवादार वातावरण का रखरखाव। ❖ सिंथेटिक कपड़ो के प्रयोग से बचें। ❖ त्वचा के संपर्क से बचना ❖ मौसम में बदलाव के दौरान विशेष रूप से सुरक्षा ❖ बच्चे और अन्य लोगों के संपर्क को कम करना जिन्हे संक्रमण हैं। ❖ खॉसते या छींकते समय मुंह और नाक को ढ़के। ❖ जो बच्चे बीमार है उन्हे डे केयर या स्कूल नहीं भेजना चाहिएं। ❖ संक्रमण के दौरान बच्चों को खिलौने, भोजन और बर्तन साझा करने की अनुमति ने दें। ❖ श्वसन पथ संक्रमण के दौरान बच्चें को अलग रखें। ❖ घरेलू क्लीनर का उपयोग करें, जैसे कि फिनाल जो बैक्टीरिया को मारता हैं। ❖ बच्चे के कमरे में धूम्रपान करने से बचें क्योकि इससे श्वसन संबंधी बीमारी होने का खतरा बढ़ जाता हैं। ❖ संक्रमित बच्चे के फोमिटिज के उपयोग से बचें। ❖ श्वसन तंत्र संक्रमण के जोखिम को कम करने के लिए टीकाकरण करवाना चाहिए। ❖ सर्दी–खांसी और गले के संक्रमण को दूर रखने के लिए सुरक्षित पेयजल प्रदान करें। ❖ छोटे बच्चों को श्वसन पथ के संक्रमण के दौरान स्तनपान जारी रखें। ❖ बच्चों को मौसमी फल और पूरा भोजन दें।	**शिक्षक की गतिविधि** समूह को शिक्षित करना **शिक्षार्थी की गतिविधि** सूनना, पूछताछ करना	पावर प्वाइन्ट्स        	संरचित प्रश्नावली

			❖ खांसी और सर्दी के लिए घरेलू उपचार का उपयोग करें जैसे – तुलसी,शहद, अदरक वाला गर्म पेय आदि। ❖ बच्चे को अच्छे पोषक तत्वों, विटामिन और खनिजों से भरपूर पोषण दें। ❖ भारी यातायात में वायु प्रदूषण के लंबे संपर्क से बचें। **टीकाकरण** वर्तमान में कुछ टीके उपलब्ध हैं – जो श्वसन पथ के संक्रमण से सुरक्षा प्रदान करते हैं। **न्यूमोकोकल कंजुगेट वैक्सीन (पी.सी.वी.)** यह टीका 6 सप्ताह, 10 सप्ताह और 14 सप्ताह में बच्चे को दिया जाता हैं। **न्यूमोकोकल पॉलीसैकराइड वैक्सीन (पी.पी.वी.)** यह टीका उन बच्चों को दिया जाता है जिनकी उम्र 2 वर्ष से अधिक हैं। **हीमोफाइलस इनफ्लूएंजा** यह टीका 6 सप्ताह, 10 सप्ताह और 14 सप्ताह में बच्चे को दिया जाता हैं। **फ्लू** फ्लू के टीके शरीर में एंटीबॉडी को विकसित करने के लिए देते हैं।		     	

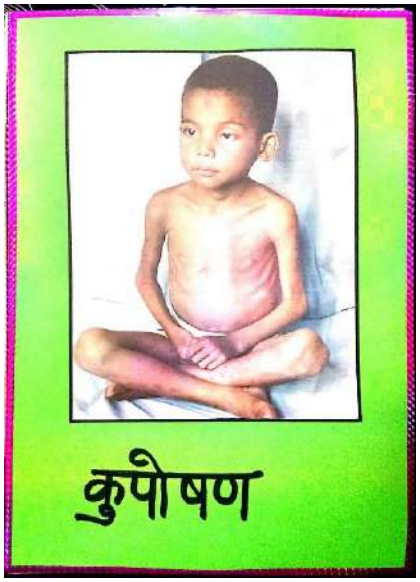
10.	2 मिनट	विषय का सार देने के लिए	**<u>सारांश</u>** श्वसन पथ शरीर के अन्य भागों की तुलना में संक्रमण के लिए बहुत अधिक असुरक्षित हैं। सर्दियों के दौरान श्वसन पथ के संक्रमण अधिक आम हैं। यह संभवतः इस तथ्य के कारण है कि सर्दियों के महीने के दौरान लोगो के अंदर रहने और एक दूसरे के साथ निकट संपर्क में रहने की अधिक संभावना है। बच्चों को वयस्कों की तुलना में अधिक ऊपरी श्वसन पथ के संक्रमण होते हैं। ऐसा इसलिए है क्योंकि उन्होनें अभी तक कई वायरस के लिए प्रतिरक्षा का निर्माण नहीं किया हैं, जो सर्दी का कारण बन सकते हैं।			
11.	1 मिनट	विषय समाप्त करने के लिए	**<u>निष्कर्ष</u>** • ऊपरी श्वसन पथ के संक्रमण डाक्टर के दौरे के सबसे सामान्य कारणों में से एक हैं। • ऊपरी श्वसन पथ संक्रमण सबसे आम बीमारी है जिसके परिणामस्वरुप काम या स्कूल छूट जाते हैं। • ऊपरी श्वसन पथ के संक्रमण किसी भी समय हो सकता है, लेकिन शरद ऋतु और सर्दियों में सबसे आम हैं। • खांसी या छींकते समय सरल तकनीक जैसे उचित हाथ धोना और चेहरे का ढ़कना ऊपरी श्वसन पथ के संक्रमण के प्रसार को कम कर सकता हैं।			

Annexure 11 (A. V. aids)

Chart



Flash Cards




प्रदूषण


धूम्रपान


जल्दी दूध छुड़ाना (माँ का)


वेन्टीलेशन कम होना

Upper Respiratory Tract Infections

Introduction

Respiratory infections in children are very common. Upper respiratory infections are one of the most frequent causes for a doctor visit with varying symptoms ranging from runny nose, sore throat, cough, to breathing difficulty, and lethargy.

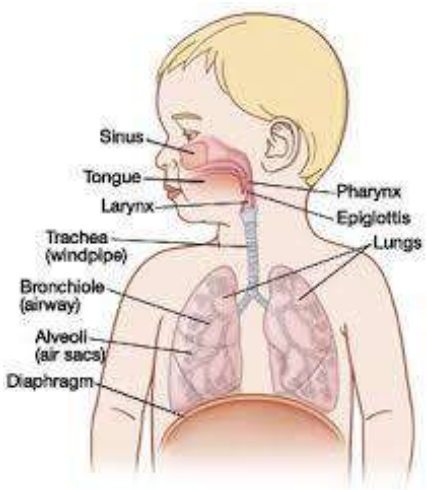
- Having six respiratory infections per year is normal.
- Some uncomplicated respiratory infections can last up to two weeks.

Although upper respiratory infections can happen at any time, they are most common in the autumn and winter months, from September until March.

The Respiratory Tract

The body consists of many system for different functions. Respiratory system is on among them which helps in breathing. Respiratory system is consisted with nose, pharynx, larynx, trachea, bronchi & lungs. Respiratory system consists of two parts:

- The upper respiratory tract
- The lower respiratory tract



Definition

Upper respiratory tract infection (URTI) are an acute infection of upper part of the respiratory tract and related structures including nose, sinuses, throat, pharynx and larynx.

Causes of Upper Respiratory Tract Infection

An upper respiratory tract infection is generally caused by the direct invasion of virus or bacteria.

Risk factors for upper respiratory tract infection

- Low birth weight
- Malnourished or non-breast fed children
- Low socio-economic and overcrowded living
- Intense indoor smoke, dust or air pollution
- Partial immunization
- Early weaning
- Lack of ventilation
- Smoking

Common Myth about disease occurrence

Respiratory infections and diseases in children are caused by any evil spirit and punishment of god.

Mode of Transmission

1. Air borne or droplet infection
2. Direct physical contact
3. Fomites

Clinical Manifestations of Upper Respiratory Tract Infection

- Runny nose
- Sneezing,
- Cough
- Fever
- Sore or scratchy throat,
- Irritability & decreased sleeping
- Malaise

Other less common symptoms may include

- Foul breath
- Headache
- Shortness of breath
- Sinus pain
- Itchy and watery eye
- Body aches.

Common symptoms that may cause to seek medical advice

- Breathing fast
- Retractions
- Coughing
- Fever
- If child refuses to drink anything

- Behavior changes including irritability or lethargy.
- Parents should call the health care providers, if the following symptoms develop:
  - Fever greater than 101^0F last 3 days.
  - Nasal congestion does not improve over the courses of 14 days.
  - Eyes become red or develop yellow discharge.

If there are sign & symptoms of ear infection like pain, ear pulling.

Home remedies for Upper Respiratory Tract Infection


- ✓ Steam inhalation
- ✓ Adequate hydration with water, juices, and non-caffeinated drinks

- ✓ Drinking warm beverages (hot chocolate, warm milk)

- ✓ Avoid cold, dry air if possible.
- ✓ Giving tepid sponge to treat fever.
- ✓ Sleeping in a semi - upright position.



Preventive measures of Upper Respiratory Tract Infection

- ✓ Keep the child clean & warm.
- ✓ Wash hands frequently with soap & water especially before touching an infants.
- ✓ Use alcohol-based or antiseptic hand rub.
- ✓ Maintenance of warm, well ventilated environment.
- ✓ Avoiding synthetic clothing and exposure of skin.
- ✓ Special protection during weather variation to prevention cold.
- ✓ Reducing contact with child and other people who may have the infection
- ✓ Cover the mouth and nose while coughing or sneezing.
- ✓ Children who are sick should not be sent to day care/school.
- ✓ Do not allow the children to share toys, food and utensils during upper respiratory tract infection.
- ✓ Isolate the child during respiratory tract infection.
- ✓ Use household cleaner, such as Phenol that kills bacteria.

- Avoid smoking in the child's room because this increases the risk of respiratory illness.
- Avoid using fomites of infected child.
- Immunization to be completed as per schedule to reduce the risk of respiratory tract infection.
- Provide safe drinking water for keeping away cold-cough and throat infections.
- Do not stop giving breast feeding during respiratory tract infections in infancy period.
- Provide seasonal fruits and whole food
- Use of home remedies for cough and cold, e.g. tulsi, honey, zinger, hot drinks etc.
- Nourish the child with good nutrients, vitamins and minerals.
- Avoid long exposure to air pollution from heavy traffic.

Vaccinations

There are currently three vaccines available - two for pneumonia and one for the flu - that can provide protection against these two respiratory tract infections.

Pneumococcal conjugate vaccine (PCV)

The dose is given at 6 weeks, 10 weeks & 14 weeks to the child.

Pneumococcal polysaccharide vaccine (PPV)

Those aged over 2 years should be vaccinated with PPV23.

Haemophilus influenza

The dose is given at 6 weeks, 10 weeks & 14 weeks to the child.

Flu vaccine

Flu vaccines cause antibodies to develop in the body about two weeks after vaccination.

Handout

On

Respiratory Tract Infection

Developmed by,

Prabhat Kumar

2nd year M.Sc. Nursing

Child Health Nursing

Guided by,

Miss Madhu Kumari Gupta

Head of Department

Child Health Nursing

Era College of Nursing, Lucknow

Era University

ऊपरी श्वसन पथ संक्रमण

परिचय

बच्चो में श्वसन संबंधी संक्रमण बहुत आम हैं। श्वसन पथ संक्रमण एक डॉक्टर के दौरे के सबसे लगातार कारणों में से एक हैं, जिसमें बहती नाक से लेकर अलग–अलग लक्षण दिखाई देते हैं जैसे – गले मे खराश, खॉसी या सॉस लेने में कठिनाई।

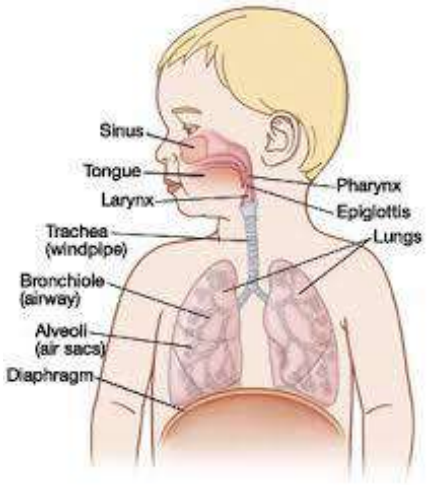
- प्रतिवर्ष छह संक्रमण सामान्य है।
- कुछ अपूर्ण श्वसन संक्रमण दो सप्ताह तक रह सकते हैं।

हालाकिं श्वसन पथ के संक्रमण किसी भी समय हो सकते हैं, लेकिन सितंबर से मार्च तक शरद ऋतु और सर्दियों के महीनों में सबसे आम हैं।

श्वसन पथ

शरीर में विभिन्न कार्यों के लिए कई प्रणाली शामिल हैं। श्वसन प्रणाली उनमें से एक है, जो सॉस लेने में मदद करती हैं। श्वसन प्रणाली में नाक ग्रसनी स्वरयंत्र श्वासनली ब्रांकाई और दोनो फेफड़े शामिल हैं। श्वसन प्रणाली में दो भाग होते है–

→ ऊपरी श्वसन पथ
→ निचला श्वसन पथ



परिभाषा

ऊपरी श्वसन पथ संक्रमण, श्वसन पथ के ऊपरी हिस्से से संबंधित संरचनाओं जैसे – नाक, साइनस, गले, ग्रसनी, और स्वरयंत्र का एक तीव्र संक्रमण हैं।

ऊपरी श्वसन पथ के संक्रमण के कारण

ऊपरी श्वसन पथ संक्रमण आमतौर पर वायरस या बैक्टीरिया के प्रत्यक्ष आक्रमण के कारण होता हैं।


ऊपरी श्वसन पथ के संक्रमण के लिए जोखिम कारक

- ➢ जन्म के समय शिशु के वजन में कमी
- ➢ कुपोषण या बच्चों को स्तनपान न कराना
- ➢ कम सामाजिक–आर्थिक स्थिति और भीड़–भाड़ वाला जीवन
- ➢ प्रदूषण
- ➢ आंशिक टीकाकरण
- ➢ जल्दी दूध छुड़ाना
- ➢ वेंटिलेशन की कमी
- ➢ धूम्रपान






रोग घटना के बारे में आम मिथक

बच्चों में श्वसन संक्रमण और बीमारियां किसी भी बुरी आत्मा और भगवान की सजा के कारण होती हैं।

संचरण की विधि

- ➢ वायु जनित या छोटी बूंद द्वारा संक्रमण
- ➢ प्रत्यक्ष शारीरिक संपर्क
- ➢ कपड़े या बर्तन साझा करने से



ऊपरी श्वसन पथ के संक्रमण के लक्षण

- ✓ बहती नाक
- ✓ छींक आना
- ✓ खॉसी आना
- ✓ बुखार आना
- ✓ गले में खराश
- ✓ नींद में कमी
- ✓ थकान






अन्य लक्षण

- ✓ दुर्गंधयुक्त श्वास
- ✓ सिर में दर्द
- ✓ श्वसन में कमी
- ✓ साइनस का दर्द
- ✓ आंखों में खुजली होना या पानी आना
- ✓ शरीर में दर्द




लक्षण जिसमें चिकित्सक से सलाह लेना जरुरी है –

- ➢ तेजी से सांस लेना
- ➢ खॉसी और बुखार
- ➢ अगर बच्चा कुछ भी खाने या पीने से मना करें
- ➢ चिड़चिड़ापन या सुस्ती सहित व्यवहार में परिवर्तन




- ➢ यदि निम्न लक्षण दिखाई दे तो माता–पिता को तुरन्त डॉक्टर से सलाह लेना चाहिए–
  - पिछले 3 दिनों में 101^0F से अधिक बुखार दिखाई दें।
  - 3 से 14 दिनों में सर्दी – जुकाम सही न हो या नाक बन्द हो।
  - आंखे लाल हो जाती हैं या पीले रंग का पदार्थ निकलता हो।
  - यदि कान में संक्रमण के लक्षण दिखाई दे रहे हों जैसे – कान में दर्द या कान खींचना।



ऊपरी श्वसन पथ संक्रमण के लिए घरेलू उपचार


- भाप देना
- पर्याप्त मात्रा में द्रव दे

तथा फलो का रस और गैर कैफिन युक्त पेय प्रदान करें।

- गर्म पेय प्रदान करें।

(गर्म चॉकलेट, गर्म दूध)

- यदि संभव हो तो

ठंडी और शुष्क हवा से बचें।

- बुखार को कम करने के लिए टेपिड स्पंज दें।
- सिरहाना उठाकर बच्चे को सुलाएं।



ऊपरी श्वसन पथ संक्रमण से बचाव के उपाय

- ❖ बच्चों को साफ और गर्म रखें।
- ❖ शिशुओं को छूने से पहले साबुन और पानी से हाथ बार–बार धोंयें।
- ❖ अल्कोहल आधारित प्रक्षालक का प्रयोग करें।
- ❖ गर्म और हवादार वातावरण का रखरखाव।
- ❖ सिंथेटिक कपड़ो के प्रयोग से बचें।
- ❖ त्वचा के संपर्क से बचना
- ❖ मौसम में बदलाव के दौरान विशेष रूप से सुरक्षा
- ❖ बच्चे और अन्य लोगों के संपर्क को कम करना जिन्हे संक्रमण हैं।
- ❖ खॉसते या छींकते समय मुंह और नाक को ढ़के।
- ❖ जो बच्चे बीमार है उन्हे डे केयर /स्कूल नहीं भेजना चाहिएं।
- ❖ संक्रमण के दौरान बच्चों को खिलौने, भोजन और बर्तन साझा करने की अनुमति ने दें।
- ❖ श्वसन पथ संक्रमण के दौरान बच्चें को अलग रखें।
- ❖ घरेलू क्लीनर का उपयोग करें, जैसे कि फिनाल जो बैक्टीरिया को मारता हैं।
- ❖ बच्चे के कमरे में धूम्रपान करने से बचें क्योकि इससे श्वसन संबंधी बीमारी होने का खतरा बढ़ जाता हैं।
- ❖ संक्रमित बच्चे के फोमिटिज के उपयोग से बचें।
- ❖ श्वसन तंत्र संक्रमण के जोखिम को कम करने के लिए टीकाकरण करवाना चाहिए।
- ❖ सर्दी–खांसी और गले के संक्रमण को दूर रखने के लिए सुरक्षित पेयजल प्रदान करें।
- ❖ छोटे बच्चों को श्वसन पथ के संक्रमण के दौरान स्तनपान जारी रखें।
- ❖ बच्चों को मौसमी फल और पूरा भोजन दें।
- ❖ खांसी और सर्दी के लिए घरेलू उपचार का उपयोग करें जैसे – तुलसी,शहद, अदरक वाला गर्म पेय आदि।
- ❖ बच्चे को अच्छे पोषक तत्वों, विटामिन और खनिजों से भरपूर पोषण दें।
- ❖ भारी यातायात में वायु प्रदूषण के लंबे संपर्क से बचें।

टीकाकरण

वर्तमान में कुछ टीके उपलब्ध हैं – जो श्वसन पथ के संक्रमण से सुरक्षा प्रदान करते हैं।

न्यूमोकोकल कंजुगेट वैक्सीन (पी.सी.वी.)

यह टीका 6 सप्ताह, 10 सप्ताह और 14 सप्ताह में बच्चे को दिया जाता हैं।

न्यूमोकोकल पॉलीसैकराइड वैक्सीन (पी.पी.वी.)

यह टीका उन बच्चों को दिया जाता है जिनकी उम्र 2 वर्ष से अधिक हैं।

हीमोफाइलस इनफ्लूएंजा

यह टीका 6 सप्ताह, 10 सप्ताह और 14 सप्ताह में बच्चे को दिया जाता हैं।

फ्लू

फ्लू के टीके शरीर में एंटीबॉडी को विकसित करने के लिए देते हैं।

Handout

On

Respiratory Tract Infection

Developmed by,

Prabhat Kumar

2nd year M.Sc. Nursing

Child Health Nursing

Guided by,

Miss Madhu Kumari Gupta

Head of Department

Child Health Nursing

Era College of Nursing, Lucknow

Era University

Annexure 12

List of Formula

1. **Mean:**

$$(\bar{X}) = \frac{\sum X}{N}$$

2. **Range: (R)** = H – L

3. **Standard Deviation:**

$$\textbf{(SD)} = \sqrt{\frac{\sum(X-\bar{X})^2}{n}}$$

4. **Paired t test**

$$t = \frac{\Sigma d}{\sqrt{\frac{n\left(\Sigma d^2\right)-\left(\Sigma d\right)^2}{n-1}}}$$

5. **Karl Pearson's coefficient**

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

6. **Spearman brown prophecy formula**

$$\mathbf{r_{II} = 2r/1+r}$$

7. **Chi square formula**

Calculation of expected frequency E = Column or vertical total × Row or horizontal total / Sample total

$$\mathbf{X^2_{df}} = \sum \frac{\mathbf{(O-E)}}{\mathbf{E}}$$

Annexure 13

Picture Gallery

Annexure 14 (a)

MAIN STUDY DEMOGRAPHIC SHEET

SAMPLE	AGE	EDUCATIONAL STATUS	OCCUPATIONAL STATUS	PLACE OF RESIDENT	FAMILY INCOME	TYPE OF FAMILY	NO OF LIVING CHILDREN	IMMUNIZATION STATUS	FAMILY HISTORY OF ALLERGIC RESPIRATORY DISEASE	Score	
										Pre	Post
1	2	2	1	2	1	1	2	1	2	15	28
2	2	1	1	2	2	1	1	1	2	12	23
3	2	5	1	1	3	2	1	1	2	20	25
4	3	6	1	1	4	1	2	1	2	10	24
5	4	6	1	1	1	2	2	1	1	17	25
6	2	6	1	1	1	1	1	1	2	18	25
7	3	3	1	2	2	1	3	1	2	13	22
8	2	5	1	2	1	2	1	1	2	15	20
9	2	5	3	1	4	1	3	2	2	19	26
10	4	6	1	2	1	1	1	2	2	19	24
11	3	1	1	2	1	2	2	1	2	13	19
12	3	3	1	2	1	1	3	1	1	14	24
13	3	2	1	2	4	1	2	2	1	15	21
14	2	5	1	2	2	2	1	1	2	15	23
15	3	6	1	2	2	2	3	1	2	21	24
16	2	1	1	2	2	1	2	2	2	14	20
17	2	3	1	2	1	2	2	1	1	15	26
18	3	2	1	1	2	2	2	1	2	14	26
19	3	1	1	1	1	1	2	1	2	12	25
20	3	1	1	2	1	1	3	2	2	12	23
21	3	1	1	1	1	1	1	1	2	15	24
22	2	2	2	2	1	2	1	1	2	14	24
23	3	2	1	2	2	1	1	1	2	15	26
24	2	1	1	2	1	1	2	2	2	13	19
25	3	4	1	2	2	2	3	1	2	14	21
26	4	2	1	2	1	2	3	2	1	13	20
27	4	6	2	1	2	2	2	1	1	25	28
28	4	5	1	2	1	2	3	1	1	18	25
29	3	6	1	1	4	1	1	1	2	18	29
30	4	3	1	1	1	2	1	1	2	10	20
31	3	6	1	2	1	1	3	1	2	15	26
32	3	2	1	1	1	2	1	2	2	11	18
33	4	1	1	2	2	1	3	1	2	9	18
34	2	6	1	1	1	1	1	1	1	15	23
35	2	5	1	2	1	2	1	2	2	15	26
36	2	3	1	2	2	2	1	1	2	12	22
37	4	4	1	1	4	1	3	1	2	9	17
38	3	5	2	1	3	1	1	1	2	13	18
39	2	5	1	1	1	2	2	1	1	15	26
40	3	2	1	1	1	1	3	1	2	7	17
41	2	6	1	1	4	1	1	1	1	16	26
42	4	1	1	1	1	1	1	1	2	13	23
43	3	1	3	2	1	1	3	1	2	15	24
44	4	1	1	2	1	1	3	2	2	14	24
45	4	1	1	2	1	1	3	1	2	13	25
46	4	4	3	1	1	1	3	1	2	20	24
47	4	6	1	1	4	1	2	3	2	20	28
48	2	5	1	1	1	1	2	1	2	20	24
49	2	4	1	2	1	1	1	1	2	19	27
50	2	3	1	2	1	2	1	2	2	15	24
51	3	5	1	2	1	1	3	1	2	20	25
52	2	6	1	2	1	2	2	1	2	15	27
53	2	5	1	1	4	1	2	1	2	15	27
54	2	6	1	2	2	1	1	1	2	21	27
55	3	6	1	2	1	2	1	1	2	16	24
56	2	6	1	2	1	2	1	1	2	18	24
57	2	5	1	2	1	2	1	1	1	15	25
58	2	1	1	2	1	1	1	1	2	17	23
59	2	2	1	2	1	1	1	1	2	13	23
60	2	6	1	2	2	2	2	1	1	20	27

Annexure 14 (b)

MAIN STUDY PRE SCORE SHEET

SAMPLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	TOTAL
1	1	0	1	1	0	1	1	1	1	0	0	0	1	0	0	0	1	0	1	1	1	0	1	1	0	0	0	0	0	1	15
2	0	0	1	0	1	1	0	0	1	0	1	1	0	1	0	1	0	0	0	0	1	1	1	0	0	1	0	0	0	0	12
3	1	0	1	1	0	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	20
4	1	1	1	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	10
5	1	1	1	1	0	1	0	0	1	1	0	1	1	1	1	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	17
6	1	1	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	0	1	0	1	1	0	1	1	1	1	0	0	0	18
7	1	1	1	1	0	0	0	0	1	0	1	1	0	0	1	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	13
8	1	1	0	1	0	0	0	0	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	0	1	0	0	0	0	0	15
9	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	19
10	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	0	1	0	0	0	0	0	19
11	1	0	0	0	1	0	1	0	1	0	0	1	0	1	0	0	1	0	1	1	1	1	1	0	1	0	0	0	0	0	13
12	1	0	1	0	1	0	0	0	1	0	1	1	0	0	1	1	0	0	1	1	0	1	1	0	1	0	0	0	1	0	14
13	1	0	1	1	0	0	1	0	1	0	1	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	15
14	1	1	1	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	0	0	1	1	1	1	0	0	0	1	15
15	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	21
16	0	0	0	0	1	0	1	1	1	0	1	0	1	1	1	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	14
17	1	0	0	1	1	1	0	1	1	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	15
18	1	0	1	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	14
19	1	1	0	0	1	0	0	1	1	0	1	0	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	12
20	1	1	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	12
21	0	1	1	1	1	1	0	1	1	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	15
22	1	0	0	1	0	1	0	0	1	0	0	1	1	1	0	0	1	0	1	1	1	0	1	1	1	0	0	0	0	0	14
23	1	0	0	0	1	1	0	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	1	0	0	0	0	0	15
24	0	0	0	0	1	0	0	0	1	0	1	0	0	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	13
25	1	0	0	0	1	0	1	1	1	0	1	0	1	1	1	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	14
26	0	0	0	0	0	1	1	0	1	0	1	1	1	1	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	13
27	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	25
28	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	18
29	1	1	1	1	1	0	0	1	1	1	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	18
30	0	0	1	0	0	0	0	0	1	0	1	0	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	10
31	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	15
32	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	1	1	0	1	1	1	0	1	1	0	0	0	0	0	0	11
33	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	1	1	0	1	1	1	0	0	0	0	0	9
34	1	1	1	1	1	1	0	0	1	0	0	1	0	1	1	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	15
35	0	1	1	0	1	0	0	1	1	1	0	0	1	0	1	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	15
36	1	0	0	1	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	12
37	1	1	1	1	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
38	1	0	1	1	1	0	0	0	1	0	1	0	0	0	1	1	0	1	0	0	0	0	0	0	1	1	0	1	1	0	13
39	1	0	1	0	0	1	0	0	1	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	15
40	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0	7
41	1	1	1	1	0	0	0	0	1	0	0	1	1	1	1	1	0	0	1	1	1	0	1	1	1	0	0	0	0	0	16
42	0	1	0	0	0	0	0	0	1	0	1	0	1	1	1	0	0	0	1	0	1	1	1	0	1	1	1	0	0	0	13
43	1	0	1	1	1	0	0	0	1	0	1	1	1	0	0	0	1	0	1	1	1	1	1	0	1	0	0	0	0	0	15
44	0	1	0	0	1	1	1	0	1	0	1	0	1	1	1	0	1	0	1	1	0	1	0	0	1	0	0	0	0	0	14
45	0	1	0	1	1	0	1	0	1	0	1	0	1	1	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	13
46	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	0	0	0	0	20
47	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	0	0	0	0	20
48	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	0	1	0	1	1	1	0	1	1	1	0	0	0	0	0	20
49	1	1	0	1	0	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	19
50	0	1	0	1	1	1	0	0	1	0	0	0	1	0	1	0	1	0	1	1	1	1	1	1	1	0	0	0	0	0	15
51	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	20
52	1	1	1	0	0	1	0	0	1	1	1	0	0	1	0	0	1	0	1	1	1	1	0	1	1	0	0	0	0	0	15
53	1	0	1	1	1	0	0	0	0	1	0	1	1	1	1	0	0	0	0	1	1	1	1	0	1	0	0	0	0	1	15
54	1	1	0	1	1	1	0	1	1	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	21
55	1	1	1	0	1	0	0	0	1	1	0	1	0	1	1	0	0	0	1	1	0	1	1	0	1	0	1	0	0	1	16
56	1	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	0	0	1	0	1	1	0	0	1	0	1	0	0	1	18
57	1	0	0	0	1	0	0	1	1	0	0	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	15
58	0	1	0	1	1	0	0	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	17
59	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	13
60	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	20

Annexure 14 (c)

MAIN STUDY POST SCORE SHEET

SAMPLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	TOTAL
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	28
2	1	1	1	1	1	1	0	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	23
3	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	1	25
4	1	0	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	24
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7	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	0	1	0	1	22
8	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	0	1	0	0	0	0	1	20
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	0	1	26
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15	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	0	0	1	24
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