

# Effectiveness of Structured Teaching Programme on Knowledge Regarding Management and Prevention of Common Cold among Mothers of Under 5 Children in Selected Hospital of Anantnag Kashmir

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**Abstract:** Respiratory diseases are very often found in children especially respiratory infections. It is one of the leading cause of mortality and morbidity in young children. India has 440 million children, but nearly 2 million of them do not live to the age of 5. Acute respiratory infections are leading cause of child mortality (30%) in India<sup>1</sup>. WHO report stated that children below 5 years of age suffer about 5 episodes of ARI per child per year. ARI is responsible for about 30-40% of visits to health care facilities and for about 20-40% admission to hospitals. Upper respiratory tract infection includes common cold, Rhinitis, Sinusitis, Naso-pharyngitis, Epiglottitis, Laryngitis, Tracheitis, Laryngotracheitis. The important risk factor associated with respiratory diseases include malnutrition, low birth weight, climatic variations, overcrowding house, air pollution, poor ventilation and lack of environmental sanitation<sup>2</sup>. Respiratory viral infection, also known as the common cold is the most common infection in Under 5 children. The common cold is an acute, self-limiting viral infection of the upper respiratory tract involving the nose, sinuses, pharynx and larynx<sup>2</sup>. The preventive measures of common cold in under 5 children includes hygienic practices related to personal and environmental hygiene, appropriate disposal of respiratory secretions, isolation of infected patients, maintenance of nutritional status, immunization to be completed as per schedule and special protection of children during weather variations to prevent cold.<sup>3</sup> **Objectives f Study:** 1.To assess the pre test knowledge score regarding management and prevention of common cold among mothers of under 5 children in selected hospital of Anantnag Kashmir. 2.To assess the post test knowledge score regarding management and prevention common cold among mothers of under five children in selected hospital of Anantnag Kashmir. 3.To compare pre test and post test knowledge scores regarding management and prevention of common cold among mothers of under five children in selected hospital of Anantnag Kashmir. 4.To determine the association of pre test knowledge scores regarding management and prevention of common cold among mothers of under five children in selected hospital of Anantnag Kashmir with their demographic variables i.e Age, Education, Occupation, Family income and Type of family. **Hypothesis:** **H1:** There is significant difference between pre-test knowledge and post-test knowledge scores regarding management and prevention of common cold among mothers of under 5 children at <0.05 level of significance. **H2 :** There is significant association between pre-test knowledge scores with selected demographic variables that is Age , Education , Occupation , Family income , Type of family at <0.05 level of significance. **Research Methodology:** Research approach -Quantitative research approach was used. Research Design: One group pre-test post- test design Research setting - Paediatric wards of Maternity hospital Anantnag. Sample size & technique- 50 mothers of under 5 children who were admitted in selected wards of Maternity hospital Anantnag by Purposive sampling technique. **Method of data collection and tool:** Self structured Interview schedule. Results: The Structured Teaching Program was found effective. in pre-test majority 38 ( 63.33%) were having inadequate knowledge, 18(30%) moderate & 4(6.66%) were having adequate knowledge regarding management and prevention of common cold. in post test 34(56.66%) were having moderate knowledge , 14 (23.33%) were having inadequate knowledge and 12(20%) were having adequate knowledge regarding management and prevention of common cold after Structured teaching programme. The results of the study revealed that there was significant association between pre-test knowledge score of mothers of Under 5 children with selected demographic variable i.e Monthly family income, Mothers Education, and Mothers Occupation evidenced that there was statistically association at  $p \leq 0.05$  level. No significant association was found with Age , and Type of family. **Conclusion:** The findings of the study concluded that the Structured teaching programme on management and prevention of Common cold was effective in improving the knowledge level of the mothers of under 5 children.

**Keywords:** Effectiveness, Structured teaching programme, Common cold, management, prevention and Mothers of under 5 children

## 1. Introduction

The coryza (common cold) or acute naso-pharyngitis is the most common respiratory infection in infants and children. In addition to the nasopharynx, the accessory paranasal sinuses and middle ear are generally involved. The common cold (viral upper respiratory tract infection (VURTI), acute viral rhino-pharyngitis, acute coryza, or cold) is a contagious, viral infectious disease of the upper respiratory system, caused primarily by rhinoviruses (30-50%) and corona viruses (10-15%).<sup>7</sup> As the common cold mainly affects the upper respiratory tract, i.e. nose, throat and the

wind piped and symptoms are similar. A cold often starts with a "tickle" in the throat, a runny or stuffy nose and sneezing. Children with cold may also have a sore throat, cough, headache, mild fever, fatigue, muscle aches, and loss of appetite. Cold usually takes seven to 14 days in recovery. In case of an added infection by the bacteria or complications like sinusitis, ear infection, laryngitis or bronchitis occur, the illness will be prolonged.<sup>4</sup>

The common cold is the most frequent infectious disease in children occurs with average two to four infections in adults and six to eight in under five children's per year.

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Collectively colds, influenza, and other infections with similar symptoms are included in the diagnosis of influenza-like illness. They may also be termed upper respiratory tract infections (URTI) in which Influenza involves the lungs while the common cold does not.<sup>5</sup>

The incidence of common cold has grown dramatically around the world in 2008. In US 62 million children are affected with cold each year and 1 billion children miss 22 million school days a year because of the cold. Cold sufferers in the U.S alone spend \$2.9 billion on over-the-counter (OTC) medications and spend nearly \$400 million on prescription medications. Adult cold sufferers miss 150 million work days and another 126 million work days are lost when parents take off days to care for their children suffering from common cold. The total economic impact on common cold to the U.S, is in excess of \$20 billion, annually.<sup>6</sup>

### 1.1 Need for the Study

Infections of the respiratory tract are the most common ailment in children. Every year acute respiratory tract infections (ARI) are responsible for an estimated 4.1 million deaths worldwide. It is estimated that Bangladesh, India, Indonesia, and Nepal together account for 40% of the global ARI mortality. About 90% of the ARI are due to pneumonia. On an average, children below 5 years of age suffer about 5 episodes of ARI which are responsible for about 30% to 50% of visits to health facilities and for about 20-40% of admissions to hospitals. In India, in the states and districts with high infant and child mortality rates, ARI is one of the major causes of death. Hospital records from states with high infant mortality rates show that up to 13% of inpatient deaths in pediatric wards are due to ARI.

The common cold is a contagious viral infection of the upper respiratory tract. A large variety of viruses are associated with common cold and that is why the body does not seem to be developing immunity against them. It commonly infects school-going children and the incidence of cold lessens with age. It is normal for a child to have cold around eight or more times a year. This is because there are hundreds of different viruses and young children are meeting each one of them for the first time.<sup>7</sup>

A cohort study was conducted on whether rhinitis is a predictor for childhood school asthma in Germany. The Study included 1314 healthy children. They were followed from birth to the age of 5 years with regular questionnaires and interviews. Specific IgE levels were measured at yearly intervals. Airway hyper responsiveness was assessed at 7 years. Allergic rhinitis until the age of 5 years was found to be a predictor for developing wheezing between the ages of 5 and 13 years. In this group of children, 41.5% of all new cases of wheezing occurred among children with preceding allergic rhinitis. The first manifestation of allergic rhinitis occurs in preschool children in whom it is a predictor for subsequent wheezing onset. Preschool children with rhinitis might thus benefit from early assessment of allergy sensitization to identify the children at high risk of wheezing.<sup>8</sup>

A descriptive study was conducted about symptom profile of common colds in school-aged children (2008). 81 subjects were taken under study, Signs and symptoms of a common cold reported in young children are those perceived by caretakers. Objective signs include cough, fever, and sneezing. Subjective symptoms include nasal congestion, feverishness, headache, and sore throat. Pre-printed diary sheets listing common signs and symptoms were kept for School-aged children for 10 days after onset of a cold. Nasopharyngeal aspirates were analyzed for respiratory viruses and potential bacterial pathogens. Result of out of 81 colds studied; the most common signs were cough and sneezing, although the most common symptoms were nasal congestion and runny nose. Other symptoms, including feverishness and headache, were each reported in 15% of children at onset. The majority of children (73%) continued to be symptomatic 10 days after onset. Rhinovirus was detected in 46%.<sup>9</sup>

UNICEF statistics (2005) reported that respiratory tract infections are one of the leading causes of under-five child mortality in developing countries and is responsible for 1.9 million deaths annually. Among 42 countries in the world, 90% of child mortality burden 14-24% of the under-five child mortality occurs in Africa and Southeast Asian region. Most of the children have about 4 to 6 attacks of acute respiratory tract infections each year.<sup>10</sup>

### 1.2 Objectives

- 1) To assess the pre-test knowledge score regarding management and prevention of common among mothers of under 5 children in selected hospital of Anantnag Kashmir.
- 2) To assess the post-test knowledge score regarding management and prevention of common cold among mothers of under 5 children in selected hospital of Anantnag Kashmir.
- 3) To compare pre-test and post-test knowledge scores regarding management and prevention of common cold among mothers of under 5 children in selected hospital of Anantnag Kashmir.
- 4) To determine the association of pre-test knowledge scores regarding management and prevention of common cold among mothers of under 5 children in selected hospital of Anantnag Kashmir with their demographic variables i.e., Age, Education, Occupation, Family income, Type of family .

### 1.3 Hypothesis

- **H1:** There is significant difference between pre-test knowledge and post-test knowledge scores regarding management and prevention of common cold among mothers of under 5 children at  $\leq 0.05$  level of significance.
- **H2 :** There is significant association between pre-test knowledge scores with selected demographic variables that is Age , Education , Occupation , Family income and Type of family at  $\leq 0.05$  level of significance.

### 1.4 Operational definitions

- Effectiveness -: In this study it refers to the desired change brought about by the teaching programme prepared by researcher and is measured by significant gain in post-test knowledge.
- Structure teaching programme: In this study it refers to the information or awareness given to mothers of under-5 children regarding common cold with the help of lecture, posters and flip books.
- Under 5 children: In this study it refers to children who are in the age group of 0-5 years and are admitted in pediatric wards.
- Mother: In this study it refers to the women having children of age group 0-5 years and are admitted in pediatric wards.

#### Conceptual Framework

The present study is based on Ludwig Von Bertalanffy's General Systems Theory (1950) or system model.

## 2. Review of Literature

Based on the objectives of the present study, the review of literature has been categorized and organized in four major headings.

- 2.1 Studies related to incidence of common cold among under 5 children.
- 2.2 Studies related to risk factors of common cold.
- 2.3 Studies related to knowledge of mothers regarding management and prevention of common cold.
- 2.4 Studies related to effectiveness of Structured teaching programme on knowledge of mothers regarding common cold.

## 3. Methodology

Research methodology is a way to systematically solve the research problem. Research methods are the techniques used by the researcher to structure a study, gather & analyze the information relevant to the research questions.

### 3.1 Research approach

In view of the nature of the problem under study and to accomplish the objectives of the study, quantitative approach was found to be appropriate.

### 3.2 Research Design

Pre Experimental One Group Pre Test Post Test Design.

### 3.4 Sample size & technique

60 mothers of under 5 children who were admitted in selected wards of Maternity hospital of Anantnag by Purposive sampling technique.

### 3.5 Method of data collection and tool

Self structured Interview schedule.

## 3. Data Analysis

The data was analyzed by descriptive and inferential statistics

## 4. Result

### 4.1 Description of demographic variables of study subjects.

### 4.2 Assess the knowledge of study subjects regarding management and prevention of common cold.

- 1) Comparison of pre & post test mean knowledge scores of study subjects regarding management and prevention of common cold.
- 2) Comparison of pre & post test level of knowledge score (inadequate, moderate, adequate) of study subjects regarding management and prevention of common cold.
- 3) Area-wise enhancement of mean % age knowledge scores of study subjects regarding management and prevention of common cold.
- 4) Comparison of correct responses as per the items in pre test and post test knowledge scores of study subjects regarding management and prevention of Common cold.

### 4.3 Association between pre test knowledge scores of study subjects with selected demographic variables.

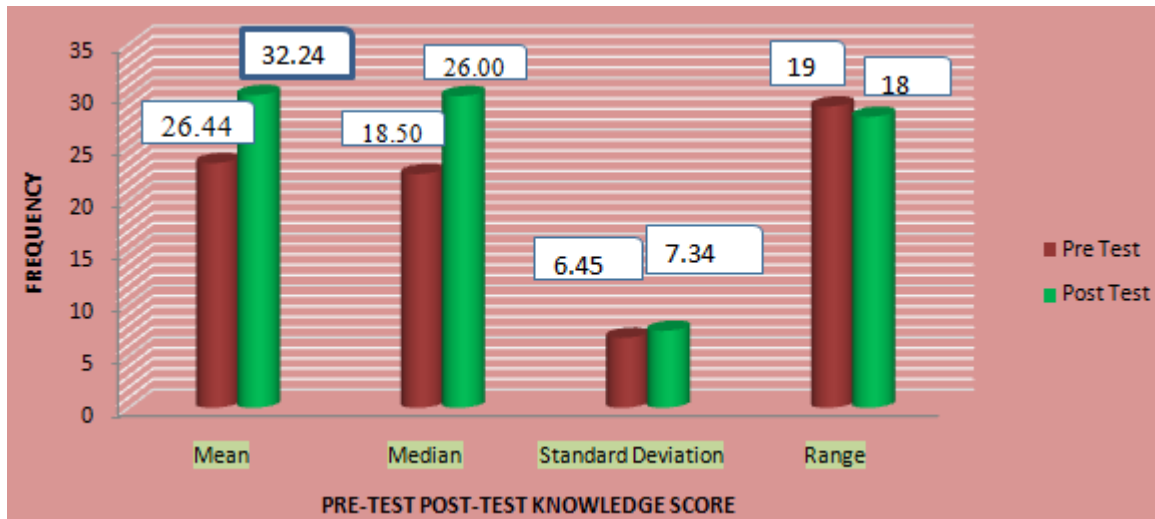
#### Description of demographic variables of study subjects

**Table 1:** Frequency and percentage distribution of Study subjects according to their demographic variables, N=60

Demographic Variables	Category	Frequency	Percentage
Age	21-25	4	6.7
	26-30	30	50
	31-35	22	36.7
	36-40	4	6.7
	Above 40	0	0
Mothers Education	Illiterate	7	11.7
	Middle Pass	6	10
	Secondary	16	26.7
	Higher Secondary	14	23.3
	Graduate	13	21.7
Monthly family income	< 15,000	11	18.3
	15000-30000	30	50.0
	> 30000	19	31.7
Type of family	Nuclear	25	41.7
	Joint	35	58.3
Mothers Occupation	House wife	42	70.0
	Government employee	16	26.7
	Private employee	2	3.3

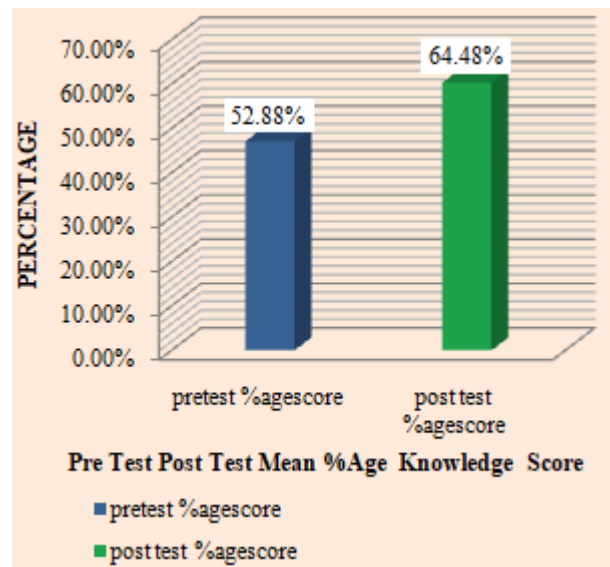
### 4.4 Analysis And Interpretation of Knowledge of Study Subjects Regarding Management and Prevention of common cold Among Mothers Of Under 5 Children, N=60

	Pre Test Score	Post Test Score
<b>Mean</b>	26.44	32.24
<b>Median</b>	18.50	26.00
<b>Mode</b>	22	36
<b>Std. Deviation</b>	6.452	7.342
<b>Range</b>	19	18
<b>Minimum</b>	14	20
<b>Maximum</b>	39	44



Comparison of Pre and Post Test Mean %Age Knowledge Scores of Study Subjects Regarding Management and Prevention of Common Cold, N=60

Group	Mean score	Mean Score (%)	Standard Deviation	Mean Difference	P Value
Pre test score	26.44	52.88%	6.45	11.6	≤0.001
Post test score	32.24	64.48%	7.34		



4.5 Association between Pre –Test Knowledge Scores Of Study Subjects With Selected Demographic Variables, N=60

Variables	Category	Freq	Pretest Knowledge			df	Chi Sq. Test $\chi^2$	P Value
			Inadequate	Moderate	Adequate			
Age	21-25	4	1	3	0	6	10.368	0.110 NS
	26-30	30	23	5	2			
	31-35	22	15	4	3			
	36-40	4	4	0	0			
Mothers Education	Illiterate	7	7	0	0	10	93.235	0.000 Sig
	Middle Pass	6	6	0	0			
	Secondary	16	16	0	0			
	Higher Secondary	14	13	1	0			
	Graduate	13	1	11	1			
	P.G and above	4	0	0	4			
	2	31	24	6	1			
Monthly family income	< 15,000	11	10	1	0	4	10.024	0.040 Sig
	15000-30000	30	24	5	1			
	> 300000	19	9	6	4			
Type of family	Nuclear	25	19	4	2	2	0.461	0.794 NS
	Joint	35	24	8	3			
Mothers Occupation	House wife	42	34	7	1	4	11.838	0.019 Sig
	Government employee	16	9	4	3			
	Private employee	2	0	1	1			

Note: N.S –Not significant.  
S\* -Significant at p≤ 0.05 level

The data presented in Table revealed that significant association was found between Monthly family income ( $p \leq 0.040$ ), Mothers Education ( $p \leq 0.000$ ) and Mothers occupation ( $p \leq 0.019$ ) of study subjects with their pre-test knowledge scores; While as no association was found between Age, and Type of family of study subjects with their pre-test knowledge scores ( $p \geq 0.05$ ).

## 5. Conclusion

The findings of the study concluded that the Structured teaching programme on management and prevention of common cold was effective in improving the knowledge level of the mothers of under 5 children. The present study shows that Monthly family income, Mothers Education, and Mothers occupation shows association with knowledge while as no association was found between Age, and Type of family of study subjects with their pre-test knowledge scores.

## 6. Recommendations

On the basis of the findings of present study the following recommendations have been made:

- 1) A similar study can be conducted on a large sample in order to draw more definite conclusions and generalizations.
- 2) A similar study can be replicated on large sample with different demographic characteristics.
- 3) A quasi-experimental study can be conducted with control group.
- 4) A similar study can be recommended by using different method of teaching.

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