



# International Journal of Advance Research in Community Health Nursing

E-ISSN: 2664-1666

P-ISSN: 2664-1658

[www.communitynursing.net](http://www.communitynursing.net)

IJARCN 2022; 4(2): 05-08

Received: 05-04-2022

Accepted: 11-06-2022

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## A study to assess the knowledge regarding acute respiratory infections and its prevention among mothers of fewer than five in rural community of Meerut

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### Abstract

Acute respiratory tract infections are the most common cause of illness and death among children in the world. In India, in the year 2001, outpatient attendance attributed to acute respiratory infections was as high as 20 percent to 40 percent of all the clients and 12 percent to 35 percent of in patients.

**Aim of The Study:** The main aim of study assess the knowledge regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community.

**Methodology:** In view of the nature of the problem selected for the study and objective to be accomplish Non-Experimental Descriptive design was considered. Sample select for the study was 50 mothers. Simple random sampling technique was used.

**Result:** Result showed Majority of the mothers of under-five children had low knowledge (70%) and 15 mothers had average knowledge (30%) and none of them had high knowledge during pre-test about ARI. The mean knowledge score regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community  $12.54 \pm 2.94$ . There was no significant association found between socio-demographic variables with knowledge regarding acute respiratory tract infections among mothers of under-five children.

**Conclusion:** The study concluded that there was majority of mothers having low level of knowledge regarding Acute Respiratory Infections and its prevention.

**Keywords:** Assess, knowledge, upper respiratory tract infections, mothers, and children

### Introduction

Acute respiratory tract infections are the most common cause of illness and death among children in the world. In India, in the year 2001, outpatient attendance attributed to acute respiratory infections was as high as 20 percent to 40 percent of all the clients and 12 percent to 35 percent of in patients<sup>[1]</sup>. This programme was taken up as a pilot project in the country in the year 1990. Since 1992-1993, this programme is being implemented a part of the child survival and safe motherhood programme, which is now an integral part of the RCH programme<sup>[2]</sup>. India has endorsed the policy of providing Health For All by adopting primary health care (PHC) in consonance with Alma Ata Declaration and to achieve Health For All by 2000 A.D. one of the major target of our 10<sup>th</sup> five year plan was reduction of infant mortality rate to 45\1000 live births by 2007 and to 28 by 2012<sup>[3]</sup>. The factors of acute respiratory tract infections can be grouped into two categories, namely host and environment. Host includes factors such as malnutrition, immunization status, vitamin A deficiency, absence of breast-feeding, low birth weight and young age. Environmental factors include indoor air pollution, poor hygiene and sanitation, over crowded housing, low socio economic status and parental smoking<sup>[4]</sup>. Acute respiratory infections mostly in the form of pneumonia, is leading cause of death in under-five children killing more than 2 million children annually. Upto 40 percent of children seen in health clinics are suffering from acute respiratory infection, mostly in the form of pneumonia and many deaths attributed to other causes are in fact "hidden" acute respiratory tract infections cases<sup>[5]</sup>.

### Need for the study

Young children fall an easy prey to infectious diseases. Under-five group is the most important age group in all societies, not because they constitute about 30 percent of total population, because there is a renewed awareness that the determinants of infectious disease are laid down at this age group<sup>[6]</sup>.

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It is known fact that a child may get affected with death several times in a year occurs due to acute respiratory tract infections in the developing world. The world health Report (1999) estimated that 27 per cent of Disability Adjusted Life Years (DALYS) attributable to major childhood conditions are due to acute respiratory tract infections [7]. WHO estimated that a standard case management strategy at domiciliary level could reduce mortality by 40 percent? The ARI control programme in India is an integral part of the primary health care delivery system of our country [8]. A study (UNICEF, 1990) on ARI in children of Bangladesh focused attention on group discussions to find out the women's perception and practices. The results of group discussion revealed that traditional beliefs and practices regarding respiratory tract infections coexist with allopathic therapies and there is a evidence of smattering of free modern scientific health belief as well [9]. One of the most encouraging signs of our times is the awakening of the mother to the needs and rights of children, since mother is the first teacher of the child. Mother has to play a key role in the treatment of the child with cough and cold and pneumonia, as they do not require any hospitalization and are totally preventable and curable.<sup>10</sup> Health education is the process by which individuals and groups of people learn to behave in a manner conducive to the promotion, maintenance or restoration of health regarding acute respiratory infections. Hence the Investigator has planned to take up a study to impart and improve the knowledge of the mothers of the under-five children with regard to selected acute respiratory tract infections in selected rural community of Meerut.

#### Aim of the Study

The main aim of the study was to assess the knowledge regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community.

#### Material and Methods

In view of the nature of the problem selected for the study

and objective to be accomplished descriptive research approach was considered to assess the knowledge regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community. The research design selected for the study was non-experimental design. The accessible population in this study where significant mothers of under five children who were present on the day of data collection. The study was conducted in rural community area i.e. Meerut this study sample size was 50 mothers of under five children who are fulfil sampling criteria. Simple random sampling technique was used. Even after prior appointments, if subjects were found busy in their emergency work, care was taken not to interrupt them in their work and again suitable time was taken. Study tool was filled personally by interviewing the subjects. The sample characteristics were described using frequency and percentage. Pearson's co-relation coefficient was used to assess the effectiveness of structured teaching. The content validity and reliability of the tool was done, which suggested that the tool was reliable. The pilot study was done on 10 samples and found that the study was feasible for the final study. The data obtained was analyzed in terms of the objective of the study using descriptive and inferential statistics. The plan of data analysis was developed under the excellent direction of experts in the field nursing and statistics.

#### Major finding of study

##### Section I: demographic variable

1 more than one third of mothers of under- five children belongs to 25 – 30 years (42%), More than half of the mothers were housewives (58%). 40 percent of families were having monthly family income of Rs.1001/- to Rs.3000/- More than one fourth of sample was having family size of four members (26%), Nearly half of mothers were having two children (46%), Majority of mothers have taken care of their under-five children during ARI (90%).

**Table 1:** Percentage distribution of mothers of under-five children related knowledge on acute respiratory tract infections in general. n=50

Content	Frequency (f)	Percentage (%)
<b>Meaning of ARI</b>		
Infection of the nose and lungs	27	54
<b>Risk factors \ causes for ARI</b>		
Air pollution	17	34
Malnutrition and Overcrowding	20	40
<b>Classification of ARI</b>		
Upper	20	40
<b>Example for upper respiratory tract infections</b>		
Common cold	14	28
<b>Example for lower respiratory tract infections</b>		
Pneumonia	15	30
<b>Type of diet should be given more for a child with ARI</b>		
Well balanced diet	16	32
<b>Best</b>		
Continuation of Breast feeding	26	52
<b>Care of the child with ARI</b>		
Giving mouth care and hot water bath	13	26
<b>Prevention of spread of ARI</b>		
Child should be kept away from other infected children	20	40

The knowledge of mothers regarding anatomy and physiology of respiratory system in that nearly two third of the respondents responded the organs of respiratory system as lungs and nose (64%), more than half of the respondents (60%) of the mothers of under five children mentioned the

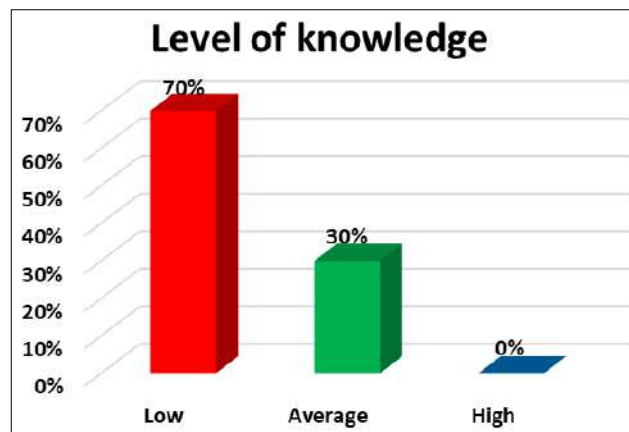
functions of lungs as Breathing-in and breathing-our of air, More than half of the respondents (56%) mothers revealed about the functions of the nose as smelling and filtration of the air, (70%) revealed that oxygen is needed for life, Half of the mothers of under-five children revealed that carbon

dioxide is coming out from our body during respiration (50%), Percentage distribution of mothers of under-five children related knowledge on acute respiratory tract infections in general. More than half mothers of under-five children in (54%) answered the meaning of acute respiratory tract infections as infections of the nose and lungs, knowledge of mothers related to causes and risk factors were as follows: malnutrition and overcrowding (40%) and Air pollution (34%). Twenty mothers of under-five children in the (40%) answered correctly that ARI is classified as upper and lower respiratory tract infections. (28%) mentioned common cold is an example for upper respiratory tract infections. (30%) listed pneumonia is one of the lower respiratory tract infections. (32%) described balanced diet should be given for the child during ARI. (52%) were aware of breast feeding is the best protective measure for ARI during infancy. (26%) aware that maintaining hygiene of the child with ARI is necessary. (40%) answered correctly that keeping infected child has to be kept away from other healthy children will prevent the spread of ARI. Percentage distribution of mothers of under-five children regarding knowledge on common cold. Data showed about mother's knowledge on common cold. It was observed that overall knowledge of mothers infection of nose is called as common cold (50%), aware i.e 1-7 days is the duration of common cold (20%), (34%) responded infections are the main cause of the common cold. (64%) responded the clinical manifestations of common cold as running nose, cough and fever. (34%) were aware of the foods which will help to overcome common cold were: tamarind, lemon and curd.

(58%) were: i.e milk with turmeric powder, steam inhalation, eating tulasi leaves. infections of ears is the main complication of common cold (30%). Percentage distribution of mothers of under-five children on knowledge regarding pneumonia. Data describes the knowledge of mothers of under-five children on pneumonia. Overall observation was (38%) mothers of under-five children were responded that inflammation of the lungs is known as pneumonia, (36%) correctly told that 12 to 14 days is the duration of pneumonia, (24%) correctly responded that infection is the main cause of pneumonia, (74%) mentioned about the signs and symptoms of pneumonia were: i.e breathlessness, fever, chill and cough, (68%) correctly responded the relief measures during pneumonia as: bed rest, steam inhalation, breathing and coughing exercises are needed to get relief from the problem of pneumonia, complication of pneumonia (22%) i.e collection of air in the chest cavity.

**Section III:** assess the knowledge regarding acute respiratory infections and its prevention among mothers of under five in rural community n=50

Level of knowledge	Frequency	%
Low	35	70%
Average	15	30%
High	0	0%
	Mean	SD
	12.54	2.94



**Fig 1:** knowledge regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community

Majority of the mothers of under-five children had low knowledge (70%) and 15 mothers had average knowledge (30%) and none of them had high knowledge during pre-test about ARI. The mean knowledge score regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community 12.54±2.94.

**Section IV**

Relationship of knowledge scores of mothers of under-five children with selected variables there was no significant association found between socio-demographic variables with knowledge regarding acute respiratory tract infections among mothers of under-five children. Like monthly income, Number of under five children in a family except Age of the mothers, Educational status, Educational status, Family size, Mothers exposure to ARI, showing significant association found between socio-demographic variables

with knowledge regarding acute respiratory tract infections among mothers of under-five children.

**Discussion**

The study aimed at determining the assess the knowledge regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community of Meerut. In view of the nature of the problem selected for the study and objective to be accomplished descriptive research approach was considered to assess the knowledge regarding Acute Respiratory Infections and its prevention among mothers of under five in rural community. The research design selected for the study was non-experimental design. The accessible population in this study where significant mothers of under five children who were present on the day of data collection. The study was conducted in rural community area of, Meerut this study sample size was 50

mothers of under five children who are fulfil sampling criteria. Simple random sampling technique was used. Even after prior appointments, if subjects were found busy in their emergency work, care was taken not to interrupt them in their work and again suitable time was taken. Study tool was filled personally by interviewing the subjects. Result showed that the Majority of the mothers of under-five children had low knowledge (70%) and 15 mothers had average knowledge (30%) and none of them had high knowledge. There was no significant association found between socio-demographic variables with knowledge regarding acute respiratory tract infections among mothers of under-five children. Like monthly income, Number of under five children in a family except Age of the mothers, Educational status, Educational status, Family size, Mothers exposure to ARI, showing significant association found between socio-demographic variables with knowledge regarding acute respiratory tract infections among mothers of under-five children.

### Conclusion

Upper respiratory tract infections (URTIs) are infections that affect the upper respiratory tract, which includes the nose, sinuses, pharynx, and larynx. Nasal obstruction, sore throat, tonsillitis, pharyngitis, laryngitis, sinusitis, otitis media, and the common cold are all examples of this. The majority of infections are caused by viruses, while some are caused by bacteria. Fungal or helminthic infections of the upper respiratory tract are also possible, although they are much less common. Acute respiratory tract infection (ARTI) is considered as one of the major public health problems and it is recognized as the leading cause of mortality and morbidity in many countries. The biggest problem for developing countries is the mortality from ARI in children less than five year of age. The study concluded that there was majority of mothers having low level of knowledge regarding Acute Respiratory Infections and its prevention. There was no significant association found between socio-demographic variables with knowledge regarding acute respiratory tract infections among mothers of under –five children.

### Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

**Funding Source:** There is no funding Source for this study.

### Acknowledgement

I most sincerely convey my deep sense of gratitude to my guide/Organisation for her/their remarkable guidance and academic support during this study.

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