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A study to assess the effectiveness of structured teaching program on knowledge regarding prevention and management of upper respiratory tract infections among mothers of under five children in selected community area, Bhopal (M.P.)

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Abstract

Children are our future, numbering over 2.3 billion worldwide and representing boundless potential. Children are exposed to serious health risk from environmental hazards. Over 40% of the global burden of disease attributed to environmental factor falls on children below five years of age, who account for only about 10% world population.

Aim of The Study: The main aim of the study was to assess the effectiveness of structured teaching program on knowledge regarding prevention and management of upper respiratory tract infections among mothers of under five children in selected community area, Bhopal (M.P.).

Methodology: In view of the nature of the problem selected for the study and objective to be accomplished evaluative research approach was considered. Sample select for the study was 60 mothers. Purposive convenient sampling technique was used.

Result: Result showed self-structured knowledge questionnaire on structure teaching program is effective on prevention and management of upper respiratory tract infections as total mean knowledge Scores is 19.43 in pre-test(SD 5.92) has increase to 32.21(SD 2.79) in post-test. Therefore, the structured teaching program was effective to increase level of knowledge regarding prevention and management of upper respiratory tract infections. There was no significant association between pre-test knowledge scores of mothers with their selected socio-demographic variables except religion showing significant association between pre-test knowledge scores of mothers with their selected socio-demographic variables

Conclusion: The study concluded that there has been a consistent increase in knowledge of prevention and management of upper respiratory tract infections scores in post-test when compared to pre-test. Therefore, the structured teaching program was effective to increase level of knowledge regarding prevention and management of upper respiratory tract infections.

Keywords: Knowledge, Structured teaching program, Prevention, management, upper respiratory tract infections, mothers

Introduction

Children are our future, numbering over 2.3 billion worldwide and representing boundless potential. Children are exposed to serious health risk from environmental hazards. Over 40% of the global burden of disease attributed to environmental factor falls on children below five years of age, who account for only about 10% world population ^[1].

Acute respiratory Infections are heterogenous group of diseases with different causative factors and it affects different parts of respiratory tract. It can be classified according to the anatomic site of infection. Upper ARI includes common cold, pharyngitis, and tonsillitis. Lower ARI includes bronchitis, Broncholitities and pneumonia ^[2] while the magnitude of the problem of ARI and its implications were not recognized until recently, major developing countries have now realized the need to focus attention on this problem. In our country too, ARIs constitute a serious health problem. They are responsible for 20-30% of deaths among under-five age and its mortality is 40% in India ^[3].

Control of upper respiratory tract infections is a major public health problem in developing countries ^[4]. A study conducted on 518 adults and children's with upper respiratory tract infections were included in this study. Patient who choose to consult general practitioners certified in homeopathy used less antibiotic drugs for upper respiratory tract infections than those seen by general practitioner prescribing conventional medications.

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No difference was observed in patients consulting general practitioners within mixed practice [5].

A descriptive study was conducted in Jordan to assess mothers knowledge and practices of managing minor illnesses of children under five years. The study was conducted at nine health centres located in Jordan. 348 mothers were asked to participate and a structured self-administered questionnaire was used to collect data related to mother's knowledge and practices in managing minor illnesses of their children. The study finding showed that, older participant mothers had more adequate knowledge and practices than the younger ones in managing upper respiratory tract infections [6].

Need for the Study

A randomized control study or observation studies of children with upper respiratory tract infections in primary care or emergency settings in high income countries who received either a control treatment or a placebo or over the counter treatment of 22182 identified references, 23 trails and 25 observational studies met inclusion criteria. Study populations varied in age and duration of symptom before study onset. The durations of earache and common colds are considerably longer than current guidance and for other symptoms such as sore throat, acute cough, broncholitis and the current guidance is consistent with this findings [7].

A cohort study was conducted in Hervanta area in Tampere to assess the viral etiology of frequently recurring respiratory infections in children. Two cohorts of children (n=329 and n=611) were followed from 2 to 24 months of age in two prospective studies. The results showed that in children less than two years of age rhino viruses, entero viruses and respiratory syncytial virus (RSV) appears to cause most of the upper respiratory infections [8].

In India it is about 43 million. A study conducted among under 5 children regarding common upper respiratory tract infection and recorded the findings such as rhinitis 62% sinus infection 42% common cold 72% and laryngitis 60% [9].

The under-five children's population accounts higher about 30 percentage in India and occurrence of acute respiratory tract infection also much higher among the under-five children. Therefore the investigator felt the need to provide accurate information about prevention and management of upper respiratory tract infection to the mothers of under five children [10].

Researcher is doing specialization in Child Health Nursing has keen interest in the subject. Researcher found that the mother of under-five children's come from various community areas requires knowledge regarding prevention and management of upper respiratory tract infection. Researcher wants that the mothers of under five years children must be aware of management of URTI and how to take care of the children, when such problem arises as children are vulnerable for such health related problems.

Aim of The Study: The main aim of the study was to assess the effectiveness of structured teaching program on knowledge regarding prevention and management of upper respiratory tract infections among mothers of under five children in selected community area, Bhopal (M.P.).

Material and Methods: In view of the nature of the problem selected for the study and objective to be accomplished evaluative research approach was considered to assess the effectiveness of structured teaching program on knowledge regarding prevention and management of upper respiratory tract infections among mothers of under five children. The research design selected for the study was pre experimental one group pre test post test design. The accessible population in this study where significant mothers of under five children who were present on the day of data collection. The present study was conducted in the selected rural community area Bhour, Bhopal. In this study sample size was 60 mothers of under five children who are fulfil sampling criteria. Non-probability Convenient 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

Data that shows majority of the mothers of under five children were between 20(33.33%), age group of 20–25 years, 29 (48.33%) belongs to joint family, 19 (31.67%) had primary education, 48 (80%) are House wife, 21 (35%) get 10001– 15000 Rs/monthly income, 20 (33.33%) had 2 children in the family, 60 (100%) are residents in rural area, 48(80%) are using government supply water, 58 (96.67%) belongs to Hindu religion, 36 (60%) are vegetarian, 39 (65%) have previous knowledge regarding upper respiratory tract infection respectively. 22 (36.66%) had knowledge from television.

Section-ii: findings related to the pre-test and post-test knowledge scores regarding prevention and management of upper respiratory tract infections among mothers of under five children.

Table 1: Frequency and percentage distribution of Pre-test and post-test knowledge scores regarding prevention and management of upper respiratory tract infections. N=60

S. No.	Scoring	Pre-Test		Post-Test	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1.	Poor	9	15.00%	0	0%
2.	Average	44	73.33%	2	3.33%
3.	Good	7	11.67%	58	96.67%
	Mean	19.43	32.38%	32.21	53.7%
	SD	5.92	--	2.79	--

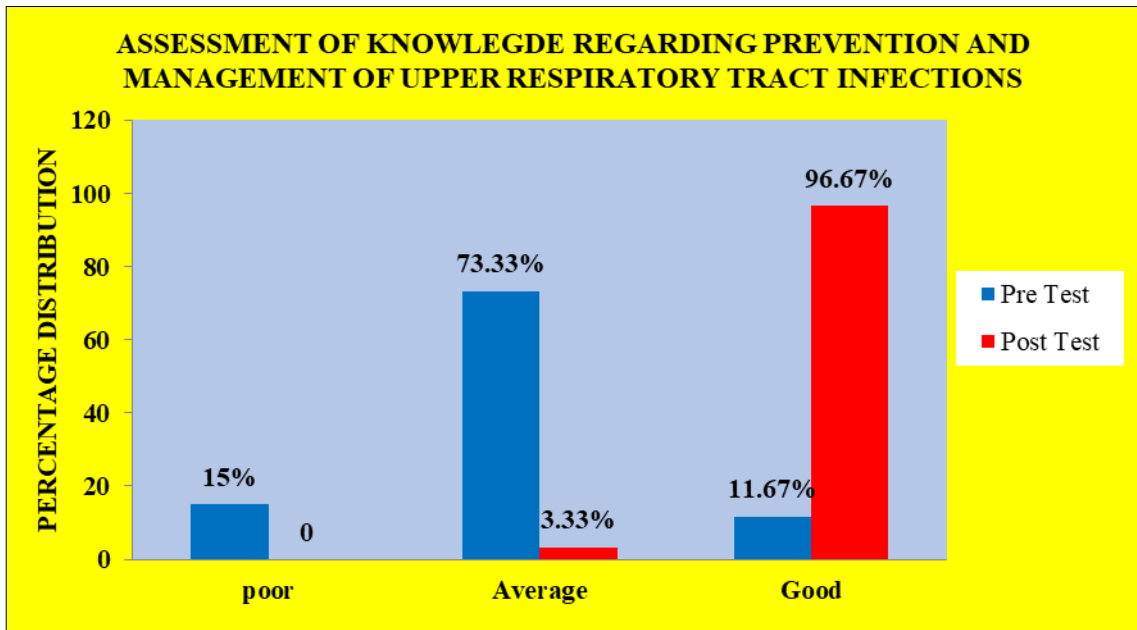


Fig 1: Pre-test and post-test knowledge scores regarding prevention and management of upper respiratory tract infections.

According to self-structured knowledge questionnaire the above table and Figure Shows that structure teaching program is effective on prevention and management of upper respiratory tract infections as total mean knowledge Scores is 19.43 in pre-test(SD 5.92) has increase to 32.21(SD 2.79) in post-test.

Section III: Findings related to the effectiveness of structured teaching program on prevention and management of upper respiratory tract infections by comparing pre-test and post-test knowledge scores

Table 2: Comparison between pre and post interventional level of knowledge scores regarding prevention and management of upper respiratory tract infection among mothers of under five children N=60

S. No.	Criteria (knowledge)	Mean	Mean difference	Standard deviation	Standard error	t-value
1.	Pre- test	19.43	12.78	0.8	0.64	15.98
2.	Post- Test	32.21				

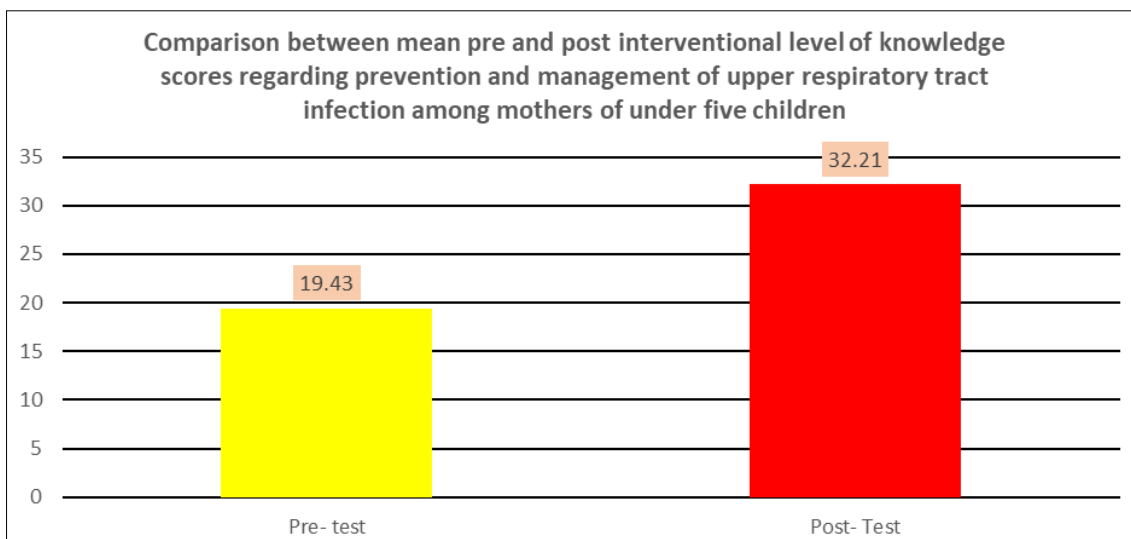


Fig 2: Comparison between mean pre and post interventional level of knowledge scores regarding prevention and management of upper respiratory tract infection among mothers of under five children

The above table 2 shows that the significant change was observed in knowledge level as evident from the calculated mean value 19.43 to 32.21 in t-value of 15.98 p value is. 00001 which is $p \leq 0.05$ with SD 0.8 therefore structured teaching program was effective.

Section-iv: findings related to association between pre-test knowledge scores of mother with their selected socio demographic variables. The significance of association investigator has decided at $p \leq 0.05$ level of significance.

There is no significant association of knowledge with selected socio-demographic variables Age of the mother, type of family, education status of mother, occupation of the mother, Monthly income of family (Rs.), number of children in the family, residential area of mother, source of water (for domestic purpose), dietary pattern, previous knowledge regarding upper respiratory tract infection, Source of information and only Religion of mother is significant

regarding prevention and management of upper respiratory tract infections at $P \leq 0.05$ level of significance.

Discussion

The study aimed at determining the assess the effectiveness of structured teaching program on knowledge regarding prevention and management of upper respiratory tract infections among mothers of under five children in selected community area, Bhopal (M.P.). The research design selected for the study was pre experimental one group pretest posttest design. The accessible population in this study where significant mothers of under five children who were present on the day of data collection. The present study was conducted in the selected rural community area Bhour, Bhopal. In this study sample size was 60 mothers of under five children who are fulfil sampling criteria. Non-probability Convenient 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 self-structured knowledge questionnaire on structure teaching program is effective on prevention and management of upper respiratory tract infections as total mean knowledge Scores is 19.43 in pre-test (SD 5.92) has increase to 32.21 (SD 2.79) in post-test. Therefore, the structured teaching program was effective to increase level of knowledge regarding prevention and management of upper respiratory tract infections. there is no significant association of knowledge with selected socio-demographic variables age of the mother, type of family, education status of mother, occupation of the mother, Monthly income of family (Rs.), number of children in the family, residential area of mother, source of water, dietary pattern, previous knowledge regarding upper respiratory tract infection, Source of information related to upper respiratory tract infection. The significance of association investigator has decided $p < 0.05$ level of significance. Only socio-demographic variable religion is significantly associated with knowledge regarding prevention and management of upper respiratory tract infections among mothers of under five children at $P \leq 0.05$ level of significance.

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 has been a consistent increase in knowledge of prevention and management of upper respiratory tract infections scores in post-test when compared to pre-test. Therefore, the structured teaching program was effective to increase level of knowledge regarding prevention and management of upper respiratory

tract infections. There was no significant association between pre-test knowledge scores of mothers with their selected socio-demographic variables except religion showing significant association between pre-test knowledge scores of mothers with their selected socio-demographic variables

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.

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