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RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME REGARDING KNOWLEDGE ON PREVENTION OF UPPER RESPIRATORY TRACT INFECTIONS AMONG MOTHERS OF CHILDREN 0-5 YEARS AT MCH, TIRUAPTI

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ABSTRACT

The aim of the study was to assess the knowledge and prevention of upper respiratory tract infection among mothers of under five children at MCH center in tirupati.

Objectives:

- To assess the existing knowledge on prevention of hygienic health practices of under-five mothers on upper respiratory tractinfections.
- To evaluate the effectiveness of structured teaching programme on upper respiratory tractinfections.
- To associate the knowledge of under-five mothers regarding upper respiratory tract infection with selected demographic variables.

Methodology: By using convenient sampling technique A quasi experimental single group pre-test and post-test design has been adopted. Fifty mothers of under five children were selected. and data collection was done by using a standardized and self-structured questionnaire.

Results: Out of 50 mothers in pre-test 88(44%) had inadequate knowledge, 6(12%) had moderate knowledge and 0(0.0%) had adequate knowledge. In post-test 0(0.0%) had inadequate knowledge, 16(32%) had moderate knowledge and 68(34%) had adequate knowledge. Out of 50 mothers pre-test 10(20%) had inadequate knowledge on prevention, 38 (72%) had moderate knowledge on prevention and 2 (4%) had adequate knowledge on prevention. In post-test 0(0%) had inadequate knowledge on prevention, 13 (26%) had moderate knowledge on prevention, 37 (74%) had adequate knowledge on prevention. Out of 50 mothers total pre-test knowledge 19(38%), had inadequate knowledge on 29 (58%), had moderate knowledge on 2 (4%) had adequate knowledge on total pre-test. In post-test 0(0%) had inadequate knowledge on, 13(26%) had moderate knowledge on 37 (74%) had adequate knowledge on total pre-test knowledge.

Conclusion: Knowledge and knowledge prevention were significant at $p<0.01$ level regarding upper respiratory tract infections, hence hypothesis is accepted.

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INTRODUCTION

Upper respiratory tract infection is an illness caused by an acute infection. Which involves the upper respiratory tract including the nose, sinuses, sore throat. Tonsillitis, pharyngitis, laryngitis, sinusitis, otitis media, and common cold. In 2015 to 2017, 2 billion cases of URTI are estimated to have occurred. As 2014 they caused about 3000 deaths. Out of the 400 surveyed, ARI was detected among 109 children giving an incidence of 27.25% among these upper respiratory tract infections was fond among 19.25%. A study conducted was on acute respiratory diseases in case of children below five years of age in MCH to determine the incidence, causes, risk factors, morbidity and mortality associated with Acute Respiratory infection and impact of simple case management in children less than 5 years of age. The annual attack rate per child was more in urban area than in rural area. Monthly incidence of acute respiratory infection was 23% in urban area, 17.65% in ruralarea.[6] The diagnosis of upper respiratory tract infection is primarily clinical and depends on eliciting a history of the typical symptoms of recurrent wheeze. Cough and breathlessness. In the preschool child, the main symptoms may be a troublesome nocturnal cough. Throat pain and may help to identify a specific allergen. In infants, a chest x-ray is helpful to exclude congenital abnormalities. Most children over the age of 5 years can use a peak flow meter their peak expiratory flow rate should be compared with that predicted for their height and their best performance.[7]

A large number of diseases could be prevented with little or no medical interventions. Mothers play a key role in the management of child with upper respiratory tract infection. Mothers has to understand that the appropriate decision making, recognize the mild, moderate and severe respiratory tract infection and initiate correct domiciliary management for upper respiratory infection at home as soon as possible to prevent the progression of the infection The ignorance and in adequate knowledge are important factors, which affects health of child.[8]

NEED FOR THE STUDY

URTI is the most prevent chronic illness of children's. Education of parents is an important aspect of asthma treatment. An important part of education is instructing the parents on how to recognize the management of upper respiratory tract infections at home,. Teaching management strategies' related to URTI prevention to parents can help improve children's.[11] The incidence of URTI is increasing among children and poor parent's knowledge contributes to increase in morbidity and mortality. This study aimed to improve knowledge regarding prevention of URTI among mothers of under five children. The knowledge regarding URTI was inadequate among mothers. So, improved knowledge may help adopt better practices to the parents especially among mothers of child.[12]

Mark L Levey, Angela ward and Sara nelson [2018] A study conducted on knowledge and practices of mothers in rural Haryana in this study data was collected on knowledge and practices of mothers in two villages of block beri of district rohtak for devising a standard management plan. 304 mothers were interviewed. About 23% of mothers recognized pneumonia by fast breathing and 11.2% recognized severe pneumonia by chest in drawing. Only 1.3% mothers knew infective origin of ARI. Although most of them were convinced about continuation of breast feeding, 70% of them were advising food restriction , use of herbal tea in ARI was widely prevalent and so was the practice of putting warm mustered oil in ear for curing ear pain. Primary health centre was the most frequent place for treatment of ARI.[13] Raina Macintyre [2017] viral and bacterial URTI in hospitals in Beijing, china for development of clinical respiratory illness. Bacterial colisation was identified in 88% [196/223], virus infection [48/223] laboratory confirmed viral infections were identified in 53[23.8%] participants 35 [15.7%] at the baseline and 20 [9.0%] at the end of study. In a study of both inpatient & outpatient children the overall swab positivity rates were 31.5% [63/200], with streptococcus pneumonia, hemophilus influenza & group A streptococcus for 22%, 5% & 4.5% respectively the URTI is generally through to be clinically significant however the significance of asymptomatic viralinfections.[14]

Jophin joseph, jyothy George [2016] conducted study regarding knowledge on prevention of upper respiratory tract infection of under-five mother in Bangladesh there is controversy about the diagnostic criteria, prevalence symptoms & characteristics of URTI we analyzed the data from crass sectional study estimated and analyzed characteristics of URTI per year thus accounting for about 138 million attacks it causes about 20-40% of admission to hospitals every year 12 million children are dying.[15]

MATERIALS AND METHODOLOGY

Research approach: quasi experimental research design
Setting of the study: The study was conducted in MCH center Tirupati

Study population: Mothers having under five children.

Study sample: 50 mothers having under five children.

Sample size: 50 under five children mothers were taken

Sampling technique: Convenient sampling technique was adopted

Criteria for Sample Selection

Inclusion criteria

- Mothers of under five children who are attending MCH attirupati.
- Who can speak and writeTelugu.
- Mothers of under five children

Exclusive Criteria

- Mothers who are not available during the time of datacollection.
- Mothers who are not willing to participate in thestudy.

INSTRUMENT

The tool used for the study consists of three sections

- Section:- I - Socio demographic data
- Section:-II – knowledge related questionnaire
- Section:-III – prevention related questionnaire

SECTION-I: This consists of nineteen questions related to socio- demographic data such as age of the mother, educational status of the mother, occupation of the mother, education status of the father, occupation of the father, number of children's family, birth order of child, monthly family income, number of windows n home, area of residence, dietary habits of family, type of house, past history of any URTI, family history of URTI, current morbidity of URTI to any of the children, do you have trees/ shrubs in your home surroundings, source of information received from were included.

SECTION-II: This consists of 10 multiple choice questions related to knowledge on upper respiratory tract infections among mothers of under five children regarding meaning, causes, signs and symptoms, diagnosis, complications, treatment, at home ad hospital, preventive measures of upper respiratory tract infections.

SECTION-III: This consists of 15 questions related to practice on prevention of upper respiratory tract infections among mothers of under children were included.

SCORE INTERPRETATION: Scoring key was prepared for section-I by coding socio-demographic data. In section II and section III each correct answer has a score of one mark and wrong answer scores zero. Thus a maximum score 10 were allotted for knowledge on upper respiratory tract infections and

Table -1 Distribution of level of pretest related to knowledge scores regarding upper respiratory tract infections of under five children.

(n=50)

Variables	PRE TEST						POST TEST					
	Inadequate		Moderate		Adequate		Inadequate		Moderate		Adequate	
	n	%	n	%	n	%	N	%	N	%	N	%
knowledge	44	88.0	6	12.0	0	0.0	0	0.0	16	32	34	68

Table 2. Distribution of level of knowledge prevention on score regarding upper respiratory tract infection among mothers of under five children

(n=50)

Variables	PRE TEST						POST TEST					
	Inadequate		Moderate		Adequate		Inadequate		Moderate		Adequate	
	n	%	n	%	n	%	N	%	N	%	N	%
prevention	10	20	38	72	2	4	0	0.0	13	26	37	74

Table 3 Distribution of Level of total pre-test knowledge on prevention scores regarding upper respiratory tract infection among mothers of under five children

(n=50)

Variables	PRETEST						POST TEST					
	Inadequate		Moderate		Adequate		Inadequate		Moderate		Adequate	
	n	%	n	%	n	%	n	%	N	%	N	%
Total pretest knowledge	19	38	29	58	2	4	0	0.0	13	26	37	74

maximum score of 15 for practices on prevention of upper respiratory tract infections among mothers of under five children. The maximum total score was 25.

The scores were interpreted in the following manner.

< 50%inadequate knowledge.
50-75% moderately adequate knowledge.
>75% adequate knowledge.

Content Validity: Content validity of questionnaire and planned health education was done by 8 members of experts child health nursing from different colleges.

Reliability of the Tool: Reliability of the tool was established by using test- retest technique and spearman's brown prophecy formula.

R=2r/1+r

Where R=Reliabilty co-efficient of the whole test.
r= Correlation co-efficient.

Reliability of coefficient of correlation related to knowledge on upper respiratory tract infections was 0.67 and knowledge on practices was 0.80.

PILOT STUDY

The pilot study was conducted from 18/03/2020 to 24/03/2020 with the sample size of 10 mothers having mothers of under five children at MCH, Tirupati. Reliability of the questionnaire related to knowledge on upper respiratory tract infections was 0.67 and knowedge on practices was 0.80 of pre and post-test respectively.

DATA COLLECTION PROCEDURE: Data was collected MCH at Tirupati. Convenient sample technique was adopted.

The investigator was introduced to the group of 50 mothers of under five children assigned for the study. A structured for pre-test, 25mts for post-test and 45mtsfor health education for each group was allotted. They were divided into five groups. The same procedure was adopted for five sections. The mothers were cooperative and attentive. The schedule which was adopted for data collection procedure as follows.

DATA ANALYSIS: After completing the data from each individual mothers, results were tabulated. Descriptive and inferential statistics were used for analysis of under five children mothers.

DESCRIPTIVE STATISTICS

- Frequency and Percentage distribution used to analyze the demographic variables
- Percentage, mean distribution and S.D used to analyze the study variables that are inter students

INFERENTIAL STATISTICS

- Chi – square was used to analyze the association of demographic variables with pre and post test
- Pearson correlation was used to correlate the pre and posttest questionnaire

FINDINGS OF THE STUDY: Table1 Represents mothers the level of knowledge on upper respiratory tract infection. In pre-test,post test 44 (88%),0(o%) had inadequate knowledge, 6 (18%),16(32%) had moderate knowledge and 0 (0%),34(68%) had adequate knowledge Table 2 Reveals that in pretest,post test 10(20%),0(0%) had inadequate knowledge on prevention, 38 (72%),13(26%) had moderate knowledge on prevention and 2 (4%),37(74%) had adequate knowledge on practices. Table 3reveals that in total pretest,post test knowledge 19(38%),0(0%) had inadequate knowledge on 29 (58%),13(26%) had moderate knowledge on 2 (4%),37(74%) had adequate knowledge on total pretest.

DISCUSSION

The aim of present study was to assess the knowledge and knowledge prevention of upper respiratory tract infection among, others of under five children before and after structure teaching programme. In this study 50 sample of mothers of under -five children were selected. The sample is chosen by convenient sample technique.

The first objective of the study is to assess the knowledge on prevention of hygienic health practice regarding upper respiratory tract infections among mothers of under-five children: Table1 Represents mothers the level of knowledge on upper respiratory tract infection. In pre-test, post test 44 (88%),10(20%) had inadequate knowledge, 6 (18%),38(72%) had moderate knowledge and 0 (0%),2(4%) had adequate knowledge. In posttest 0(0%),0(0%) had inadequate knowledge, 16 (32%),13(26%) had moderate knowledge and 34 (68%),37(74%) had adequate knowledge.

Mark L Levey, Angela ward and Sara nelson [2018] A study conducted on knowledge and practices of mothers in rural Haryana in this study data was collected on knowledge and practices of mothers in two villages of block beri of district rohtak for devising a standard management plan. 304 mothers were interviewed. About 23% of mothers recognized pneumonia by fast breathing and 11.2% recognized severe pneumonia by chest in drawing. Only 1.3% mothers knew infective origin of ARI. Although most of them were convinced about continuation of breast feeding, 70% of them were advising food restriction, use of herbal tea in ARI was widely prevalent and so was the practice of putting warm mustered oil in ear for curing ear pain. Primary health centre was the most frequent place for treatment of ARI.[13\]

The second objective of the study to evaluate the effectiveness of structured teaching programme on upper respiratory tractinfections among mothers of under five children: Table -2 of reveals that the effectiveness of level of knowledge and knowledge on prevention regarding upper respiratory tract infection scores the mean of pretest knowledge was 4.72 and standard deviation was 0.76; mean of pretest prevention was8.68 and standard deviation was 1.53, and total pretest knowledge was 13.40, and standard deviation was 1.83. In posttest mean of knowledge was 7.80, and standard deviation 0.86, mean of prevention 12.82, and standard deviation 1.92, and total posttest knowledge was 20.62 and standard deviation was 2.38.were significant at $p<0.01$ level

Kumar ashwani, Paul kalosona conducted in 20015-2016 effects of exposure to cooking smoke, determined by the type of fuel used for cooking such as biomass and solid fuels. According to the report on the cause of death 2010-2013 RTI with 22% second leading cause of death among children 0-4 years in India. 4 lakh deaths every year are due to pneumonia according for 13-16% among children under age five at the rate of 13.5/1000 live births. A higher proportion of deaths due pneumonia was neonatal mortality rate in India.

3.The third objective of the study was to find out the relationship between socio demographic variables and knowledge regarding upper respiratory tract infections among mothers of under five children: TABLE-3 reveals that in pre-test, level of knowledge in association with demographic variables shows age of mother, education of the father, no of children's below five years, dietary habits of the family, past history of upper respiratory tract infection and family history of URTI are significant at $p<0.05$ level and education of the mother, occupation of the mother significant $p<0.01$ level. In post-test; age of the mother, education of the father, occupation of the mother, no of children below 5 years, type of family and home surroundings are significant at $p<0.05$ level.

Fahmida chowdhury, Mohammod jobayer chisti et al (2011): Conducted study on association between parental smoking and nutritional status of under five children attending chest hospital, Dhaka, Bangladesh. The study aimed at determining whether there is an association between parental smoking and nutritional status of children aged 0-59 moths among 13,555 under five children, fathers of 49% were smokers. In in multivariate logistic regression models adjusting for potential confounders, fathers smoking was significantly associated with risk of moderate underweight (OR 1.16,95% C 11), sever underweight with increased risk of moderate underweight(OR 1.15, 95% cl 1.06-1,23) and severe stunting (OR 1.13,95% cl 1.03-1.25). in middle and lower socioeconomic atrata, risk of moderate and severe child malnutrition was found to be significantly increased in the group where the father was a smoker.

Conclusion

Out of 50 caregivers among 50 caregivers 44 (88%) had inadequate knowledge, 6 (18%) had moderate knowledge and 0 (0%) had adequate knowledge. With regarding to knowledge prevention 10(20%) had inadequate knowledge on prevention, 38 (72%) had moderate knowledge on prevention and 2 (4%) had adequate knowledge on practices, the researcher prepared information booklet on prevention of upper respiratory tract infections. This information booklet helps the mothers to known how to prevent the upper respiratory infections, maintain good health, achieving good goals for their children, to prevention of the healthy life style, healthy behavior on good eating habits, physical exercise and improve them.

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