

“A Study To Assess The Effectiveness of Structured Teaching Programme on Knowledge Regarding Bronchial Asthma Among Mothers of Under Five Children In Selected Hospitals, Tirupati.”

*Miss.K.Rekha, **Prof.Dr.A.Padmaja

*M.Sc (Nursing), Final year, college of nursing ,SVIMS,Tirupati.

**M.A(PSY),M.Sc(N), Ph.D.,Professor&Vice-Principal, Child Health Nursing, SVIMS Tirupati.

Corresponding Author: *Miss.K.Rekha,

Abstract

Background: Respiratory Tract Infections are one of the leading causes of death in Developing countries. Those are Lower Respiratory tract infection, Tuberculosis, chronic obstructive pulmonary disease, and Bronchial Asthma.¹ Bronchial Asthma is one of the leading causes of hospitalization among children². Asthma is one of the most common non-communicable disease. Although the onset of Asthma may occur at any age, 80% to 90% of children have their first symptoms before 4 to 5 years of age.³ **Objectives:** 1.To assess the knowledge regarding Bronchial asthma among mothers of under five children. To evaluate the Effectiveness of structured teaching program on knowledge regarding bronchial asthma among mothers of under five children. To find out the relationship between socio-demographic variables and knowledge Regarding Bronchial Asthma among mothers of under five children. **Method:** A quasi experimental single group pre-test and post-test design was adopted to assess the effectiveness of structured teaching programme on knowledge regarding Bronchial Asthma among mothers of under five children in selected hospitals, Tirupati. A total of 50mothers of under five children were selected by convenient sampling technique. **Results:** The effectiveness of level of knowledge and knowledge on practices regarding Bronchial asthma scores the mean of knowledge was 1.76 and Standard deviation was 0.771; mean of practice was 2.14 and standard deviation was 0.729.In Post-test mean of knowledge was 7.54 and standard deviation was 1.446 and mean of practice was 13.0 and standard deviation was 1.632 . knowledge and practice were significant at $p < 0.01$ level. **Conclusion:** This study was successful in presenting a better understanding of the issues associated with introduction of Bronchial asthma in children.

Keywords: Asthma, knowledge, Practice.

Date of Submission: 20-08-2018

Date of acceptance: 03-09-2018

I. Introduction

Asthma is a chronic illness, it creates serious health problem. It affects the quality of life and creates economic problems for patients , families and society. However, it can be controlled with effective treatment and management. People with Asthma have more frequent symptoms if they are exposed to Environmental ‘triggers’ such as certain air pollutants, outdoor allergens, tobacco smoke, cockroaches, dust mites, furry pets, mold and viral respiratory infections .They will also have more symptoms if they do not take appropriate or adequate medications. Frequent Asthma symptoms can be a sign of inadequate medical control and persistent exposure to environment triggers which cause greater severity of the disease.⁴

The WHO (World Health Organization) estimates that asthma affects nearly 235 million people worldwide, with more than 2, 50,000 deaths each year. There were 3,83,000 deaths due to asthma in 2015, according to the latest data released by WHO in December 2016. It is estimated that the number of people with asthma will grow by more than 100 million by 2025. Less than 30 Million asthmatics in India. Asthma with its sometimes debilitating and life threatening aspects and growing prevalence, has become public health emergency in many countries.⁵

II. NEED FOR THE STUDY

Bronchial Asthma is the most prevalent chronic pulmonary disorder affecting children. 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 acute Asthma attacks at home. Teaching management strategies related to Asthma prevention to parents can help improve children’s lung function.⁶

The incidence of asthma 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 asthma among mothers of under five children. The Knowledge regarding asthma was inadequate among mothers. So,

Improved knowledge may help adopt better practices to the parents especially among mothers of children with asthma and also help bridge the existing gap between recommended and actual practices regarding childhood Asthma.⁷

II. Review Of Literature

- M Guerriero (2018) conducted study on “prevalence and features of asthma- chronic obstructive pulmonary disease overlap in northern Italy general population”. There is controversy about the diagnostic criteria, prevalence, symptoms, and characteristics of asthma-COPD overlap. we analyzed the data from cross sectional study estimated and analyzed characteristics of asthma and COPD. One thousand two hundred and thirty six patients were included.;207(16.7%) had asthma, COPD, or ACO(mean ages:61.2,59.7, and 57.2 years respectively).⁸
- So young Kim, songyong sim and hyo geun choind temporal relations(2018); conducted study on “active and passive smoking impacts on asthma with quantitative and temporal relations: A Korean community health survey”. This study aimed to evaluate the relations of smoking with asthma related symptoms, considering quantitative and temporal influences. The 8,710 korean adults in the Korean community health survey in 2009,2010,2011,and 2013 were included in study. Information on wheezing, exercise, wheezing and aggravation of asthma in past 12 months and asthma diagnosis history and current treatment was collected. current smokers demonstrated higher adjusted odd ratios(AORs) for wheezing and asthma aggravation than former smokers. M.Lind back was conducted study on socio economic conditions as risk factors for asthma in children aged 4-5 years in Norway. questionnaire was given to parents in connection with the ordinary child control 4-5 year old children.”Has the child at present or ever had asthma?”.out of 2,430 parents,1,913(79%) responded.several backround factors were significantly associated with asthma logistic regression analysis.⁹
- Sandeep Banga et. al(2017),conducted study the knowledge of Asthma in knowledge of Asthma in mothers of children suffering from wheezing disorders. wheezing disorders like asthma have significant negative impact on disability adjusted life-years (DALY) index. Their timely recognition, which is highly dependent on care givers knowledge, is the most important step in the management of such disorders. The purpose of this study was to assess the knowledge of asthma of mothers of children suffering from wheezing disorders. a total of 300 mothers having children aged 6 months to 18 years were enrolled in the study. Maximum number of mothers (79.3%) reported change in weather as the most important precipitating factor for their child’s illness. Dust (47.3%), food/drinks (42.7%) and cold air (37.3%) were other commonly reported precipitating factors. Mothers had poor knowledge about home management of an acute attack of asthma. Only 34% of mothers give aerosol therapy during an acute attack. Although majority of mothers knew about aerosol therapy, but they were notusing it because of various false beliefs like addictive nature of therapy, social stigma associated with its use and its side effects.Informationaboutwheezydisorders like asthma was inadequate among mothers of asthmatic children in our setting. Misconceptions about the disease and the available therapies and paucity of information about current trends in management are significant findings.¹⁰
- Mark L Levey, Angela ward and sara Nelson(2018) conducted study on “Management of children and young people with Asthma :a clinical audit report”. An asthma attack or exacerbation signals treatment failure. most attacks preventable and failure to recognize risk of asthma attacks are well recognized as risk factors for future attacks and even death. Of the 19 recommendations made by the United kingdom National Review of asthma deaths(NARD) only one has been partially implemented-National asthma audit. This was aimed at improving quality health care delivery. This audit providing identification of asthma risks and active optimization of management, preventable asthma attacks could become ‘never events’.¹¹

III. Operational Definitions

Structured teaching programme : it is systematically organized teaching and learning activity, designed for a group of mothers of under fives regarding Bronchial Asthma, it’s meaning, causes, clinical manifestations, diagnosis, management and Prevention.

Hypothesis:

- There will be significant improvement in knowledge of mothers of under five children regarding Bronchial asthma after structured teaching programme.
- There will be significant improvement in practices of mothers of under five children regarding Bronchial asthma after structured teaching programme.

Assumptions:

- *Mothers may have inadequate knowledge and practices on care of children with Bronchial asthma.*
- *Structured teaching programme on care of children with Bronchial asthma to the mothers of under fives would bring about change in their better practices.*
- *Mothers may spread the information to others.*

IV. Methodology

Research design

The research design selected for the present study was a quasi-experimental single group pre-test and post-test research design. The study was conducted in selected hospitals, Tirupati. The population of this study includes mothers of under five children. Sample size consisted of 50 mothers of under five children with convenient sampling technique was adopted.

Inclusive Criteria

- *Mothers of under five children.*
- *Mothers who are available at the time of data collection.*

V. Data Analysis

After giving a score for each mother, both pre-test and post-test results were tabulated. Descriptive and inferential statistics were used for the analysis of the pre-test and post-test.

VI. Results And Discussion

Table 1(Annexure-I) : Distribution of Demographic variables among mothers of under five children. The data presented in table – 1 shows that Out of 50 Under five Mothers, majority 21(42.0%) were aged 19-23 years and 4(8.0%) were at the age group of less than 18 years. Related to Education of the mother, majority 33(66.0%) were Illiterates, and none of them having technical education. Related to Education of the father, majority 21(42.0%) were having secondary education, and none of them having technical education. Pertaining to occupation of the mother, majority 33(66.0%) were home makers, and 4(8.0%) were employees. In accordance with fathers occupation , majority 32(64.0%) were laborers, and 5(10.0%) were doing business. Related to No. of children below 5 years, majority 26(52.0%) were having two children, and 4(8.0%) were having four and above children. Related to family income per annum ,majority 43(86.0%) were having income of less than Rs 30,000 rupees and none of them were having 0(0.0%) income of more than Rs70,001. Related to type of family, majority 28(56.0%) were in Nuclear family, and 3(6.0%) were in extended family. Regarding to type of house, majority 32(64%) were in kacha house and 18(36.0%) were in pucca house. Pertaining to dietary habits, majority 36(72.0%) were Non –vegetarians and 14(28.0%) were vegetarians. Related to past history of Asthma majority 28(56.0%) were having no asthma and 3(13.6%) having asthma since 4 years. Regarding family history of asthma , majority 29(58.0%) were having family history of asthma, and 21(42.0%) having no family history of asthma. Pertaining to Habit of smoking majority 29(58.0%) having habit of smoking, and 21(42.0%) having no history of asthma. Related to method of cooking majority 24(48.0%) were using gas stove, and 8(16.0%) were using kerosene stove for cooking. Regarding source of information majority 19(38.0%) were taking from media ,and 1(2.0%) were taking from family members.

Table 2(Annexure-II): Distribution of level of knowledge scores regarding Bronchial asthma among mothers of under five children. Out of 50 mothers the level of knowledge on Asthma. In pre -test 22(44%) had inadequate knowledge, 18(36%) had moderate knowledge and 10(20%) had adequate knowledge.

In post test 11(22.0%) had inadequate knowledge, 18 (36%) had moderate knowledge and 21(42%) had adequate knowledge.

Table 3(Annexure-I) : Distribution of level of knowledge on practice scores regarding Bronchial asthma among Mothers of under five children. Reveals that in pre test 10(20%) had inadequate knowledge on practices, 23(46%) had moderate knowledge on practices and 17(34%) had adequate knowledge on practices. In post test 12(24%) had inadequate knowledge on practices, 18(36%) had moderate knowledge on practices, 20(40%) had adequate knowledge on practices.

Table 4(Annexure-I): The effectiveness of structured teaching programme related to level of knowledge and knowledge on practices regarding Bronchial asthma among mothers of under five children. Both the level of Knowledge and practices were significant at $p < 0.01$ level.

VII. Conclusion

Nursing implications:

In order to improve the efficiency of mothers of under five children to promote optimum child development, there is a need of structured teaching programme. The Findings of the study have implications in nursing services, nursing education, nursing administration and nursing research.

Nursing services:

Health education programmes are the essential part of nursing service. The results of the study would help the nurse to enlighten their knowledge on importance of Health education. Nurses can be instrumental in preventing Bronchial asthma and helping the mothers of under five children by teaching about causes, pathophysiology, signs and symptoms, prevention and complications.

- Provide family centred nursing care and involve the patients in the health programmes in hospital and community.
- Provide anticipatory guidance to mothers regarding prevention of Bronchial Asthma and its complications.
- In paediatric wards, well baby clinics, primary health centres, sub centres, Anganwadi centres, and schools Health education is planned and implemented using various teaching audio visual aids like charts, flip cards, pamphlets and block board.

Nursing Research:

- ✓ Nursing Research on newer method of teaching focusing on interest, quality, and cost effectiveness.
- ✓ There is a great need for nursing Research in the areas of mothers education, particularly about Bronchial asthma.

SUGGESTIONS :

Based on the study findings, the following suggestions are proposed.

- ❖ A study could be conducted using the post-test after one month, six months and one year to see the relation of knowledge.
- ❖ The study could be conducted with large samples.
- ❖ The study could be replicated in different settings, such as community areas to strengthen the findings.
- ❖ A comparative study could be done in rural and urban settings.
- ❖ A similar study conducted by administering self-instructional material on Bronchial asthma which could be also serve as reference material for mothers.
- ❖ A descriptive study to assess the knowledge and practices regarding Bronchial asthma among mothers of under five children could be undertaken.

References

- [1]. The Lippincott. Manual of nursing practice. 7th edition. Jaypee Brothers Medical publishers, (2001), 48 pp
- [2]. Pal R,Dahal s,Pal S.Prevalence of bronchial asthma in Indian children. Indian j community Med.(2009);34:310.
- [3]. Wong L,Donna,Hocken berry J,marilyn,wong's Nursing care of Infants and Children,7th edition, Mosby An Affiliate of Elsevier science Publications(2003),1385-1404..
- [4]. Richard Brown J.V.,Avery E.,Moberly C.,Boccuti L., and Golbatch T.,Asthma management by preschool children and their families: a developmental frame work, Journal of Asthma(1996);33(5);299-311.
- [5]. <http://asthmastatistics2018.com>
- [6]. National Journal of Research in community medicine.vol.3.issue3.224-229.
- [7]. .American Lung Association. Asthma and children,www.lung.org.
- [8]. .Guerriero M, Caminati M, Viegi G, Senna G,Pomari C(2018),Prevalence and features of asthma-chronic obstructive pulmonary disease overlap in Northern Italy general population; Pub Med journals publications,8:1-7.
- [9]. So Young Kim, Song yong Sim, Hyo Geun Choi, Active and passive smoking impacts on asthma with quantitative and temporal relations:A Korean community Health Survey, Scientific Reports 8,article number:8614.
- [10]. Sandeep banga, showkat hussain Tali,Palvinder singh,shagufta yousuf, Kanali singh, mukthiyar singh pannu and gaurav malik(2017),To study the knowledge of Asthma in Mothers of children suffering from wheezing disorders.; International journal of current multidisciplinary studies publications,;vol 3,pp.690-693.
- [11]. Mark L Levy, Angela Ward and sara nelson(2018);Management of children and young people (cyp) with asthma: a clinical audit report; Primary care respiratory society UK/Macmillan Publishers limited.

ANNEXURE-I

Table-1: Distribution of Demographic variables among Mothers of under five children.

n =50

Demographic variables		Frequenc y	Percentage %
Age	Less than 18 years	4	8.0
	19-23 Years	21	42.0
	24-27 Years	19	38.0
	Above 27 Years	6	12.0

	Total	50	100.0
Education of the mother	Illiterate	33	66.0
	Primary Education	12	24.0
	secondary Education	4	8.0
	Collegiate Education	1	2.0
	Technical Education	0	.0
	Total	50	100.0
Education of the Father	Illiterate	10	20.0
	Primary Education	13	26.0
	Secondary Education	21	42.0
	Collegiate Education	6	12.0
	Technical education	0	.0
	Total	50	100.0
Occupation of the mother	Home Maker	33	66.0
	Business	8	16.0
	Employee	4	8.0
	Total	50	100.0
Occupation of the Father	Labourer	32	64.0
	Business	5	10.0
	Employee	13	26.0
	Total	50	100.0

Demographic variables		Frequency	percentage %
No. of children below 5 years	One	10	20.0
	Two	26	52.0
	Three	10	20.0
	Four and above	4	8.0
	Total	50	100.0
Family Income (per annum in rupees)	Less than 30,000	43	86.0
	30,000-50,000	7	14.0
	51,000 -70,000	0	.0
	71,000andabove	0	.0
	Total	50	100.0
Type of Family	Nuclear family	28	56.0
	single parent family	14	28.0
	Joint family	5	10.0
	Extended Family	3	6.0
	Total	50	100.0
Type of House	Pucca	18	36.0
	Kacha	32	64.0
	Total	50	100.0
Dietary habits	Vegetarian	14	28.0
	Non-vegetarian	36	72.0
	Total	50	100.0
Past history of asthma	Yes	22	44.0
	No	28	56.0
	Total	50	100.0
If yes	1 year	7	31.8
	2 year	8	36.4
	3 year	4	18.2
	4	3	13.6
	Total	22	100.0
Family history	Yes	29	58.0
	No	21	42.0
	Total	50	100.0

Demographic variables		Frequency	Percentage %
Habit of smoking	Yes	29	58.0
	No	21	42.0
	Total	50	100.0
Home Surrounding	Yes	48	96.0
	No	2	4.0
	Total	50	100.0
Method of cooking	Domestic Fuel	18	36.0
	Gas stove	24	48.0
	Kerosene stove	8	16.0
	Any other	0	.0
	Total	50	100.0
Source of Information	Family members	1	2.0
	Friends	13	26.0

	Media	19	38.0
	Neighbors	17	34.0
	Total	50	100.0

Table 2: Distribution of level of knowledge scores regarding Bronchial asthma 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	%
Knowledge	22	44.0	18	36.0	10	20.0	11	22.0	18	36.0	21	42.0

v

Table 3 : Distribution of level of knowledge on practice scores regarding Bronchial asthma 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	%
Practice	10	20.0	23	46.0	17	34.0	12	24.0	18	36.0	20	40.0

Table 4 : The effectiveness of structured teaching programme related to level of knowledge and knowledge on practices regarding Bronchial asthma among mothers of under five children.

N=50

Score	Pre-test			Post-test			t-value	P-value	Significance
	Mean	N	SD	Mean	N	SD			
Knowledge	1.76	50	0.771	7.54	50	1.446	29.112	0.00	**
Practice	2.14	50	0.729	13.10	50	1.632	44.909	0.00	**

Miss.K.Rekha., ““A Study To Assess The Effectiveness of Structured Teaching Programme on Knowledge Regarding Bronchial Asthma Among Mothers of Under Five Children In Selected Hospitals, Tirupati.”” IOSR Journal of Nursing and Health Science (IOSR-JNHS) , vol. 7, no.4 , 2018, pp. 67-72.