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Arya SS
Professor and HOD,
Department of Paediatric
Nursing, Mount Shepherd
School and College of Nursing,
Bengaluru, Karnataka, India

A study to assess the effectiveness of structured teaching programme on knowledge regarding management and prevention of complication of bronchial asthma among mothers of under-five asthmatic children in selected hospitals at Bangalore, Karnataka

Arya SS

Abstract

Asthma is a condition in which the airways of the lungs are narrowed making breathing difficulty. Asthma is estimated to affect 300 million people worldwide. About 10 out of every 100 children in India have asthma. It is more common in urban than rural because of industrialization and air pollution. Asthma is more common in winter season, and commonly affects the age group of 2-6 years of age. A quasi-experimental pre-test and post-test design was used for the study. The sample consists of 60 mothers of under-five asthmatic children in chosen by using purposive sampling technique in selected hospitals at Bangalore. The pre-test revealed that knowledge on bronchial asthma before structured teaching programme was inadequate (60%) and moderately adequate (37%) and adequate (3%). The result shows that there is significant improvement ($p<0.05$) in the level of knowledge of mothers on bronchial asthma after implementing the STP. There was a significant association between the level of knowledge and practice with Mothers education, No. of children's and source of information. Hence both research hypotheses are accepted. In a nutshell it is proved that the planned teaching programme is an effective tool to improve knowledge and practice.

Keywords: STP, Under-five

Introduction

In this study research scholar has identified the need of creating awareness among mothers of under five children effectiveness of structured teaching programme regarding the management and prevention of bronchial asthma. Researcher has observed unawareness of bronchial asthma among under-five children's through her experience. The research topic chosen is on the basis of the experience in the field of paediatrics and has been studied by her extensively. Under-five are one of the major groups comprising in the population. Children are the wealth of tomorrow and the growing citizens. Taking care of children will make them to meet the challenges of tomorrow and thereby making a strong India. Indian children are very prone to respiratory infections because of variable population density and climatic changes.

Global Strategy for Asthma management and Prevention Guidelines defines asthma as a chronic inflammatory disorder of the airway associated with increased airway hyper responsiveness, recurrent episodes of wheezing, breathlessness, and chest tightness. Severe childhood asthma is a serious, life-threatening condition that presents a challenge for the patients, families and caregivers. Asthma can cause the airway congestion so as air cannot pass through freely. Without the exchange of gases within the lungs, the patient can perish within minutes. The treatment plan should be written down and adjusted according to changes in symptoms. Avoidance of triggers is a key component of improving control and preventing attacks. The most common triggers include allergens, smoke (tobacco and other), air pollution, non-selective beta-blockers, and sulphite-containing foods.

Corresponding Author:
Arya SS
Professor and HOD,
Department of Paediatric
Nursing, Mount Shepherd
School and College of Nursing,
Bengaluru, Karnataka, India

World Health Organization recognizes asthma as a major health problem. Parent's perception of the child's disease is a significant factor influencing the acceptance of the disease and compliance to the therapy. Therefore, patient education programme forms an integral component in the long-term management of asthma. Knowledge empowers patients, especially in a chronic disease like asthma.

Objectives

1. To assess knowledge of mothers of under-five asthmatic children regarding management and prevention of complications of bronchial asthma.
2. To develop and implement the structured teaching program on knowledge regarding management and prevention of complications of bronchial asthma among under-five children's mothers.
3. To evaluate the effectiveness of structured teaching programme on knowledge regarding management and prevention of complications of bronchial asthma.
4. To find out the association between knowledge of mothers of under-five asthmatic children regarding management and prevention of complications of bronchial asthma with selected demographic variable.

Research methodology

A quasi-experimental pre-test and post-test design was used for the study. The sample consists of 60 mothers of under-five asthmatic children chosen by Non-probability purposive sampling technique in selected hospitals at Bangalore. In this study independent variables refers to structured teaching programme on Bronchial Asthma. In the present study dependent variables refers to the score on knowledge test. In this study the population is the mothers of under-five children with bronchial asthma.

The samples are selected with the following predetermined set of criteria during the period of the study. The instrument for data collection consisted of closed ended questionnaire. This was developed based on the objectives of the study and by doing extensive literature review. It consisted of 30 questions; correct answers were given a score '1' and wrong answers were given a score '0'. The total score of knowledge on bronchial asthma was converted into 100%. The score key were categorized by adequate level of knowledge with the percentage of >75% and range of score is 23 – 30, moderate level of knowledge with the percentage of (50-75)% and range of score is 15-22 and inadequate level of knowledge with the percentage of <50% and range of score is <15, The content validity of the tool was obtained on the basis of opinion from experts in the field. Suggestions of experts were taken, and final tool was prepared. Reliability of the tool was carried out by test re-test method. The reliability of tool was established after pilot study.

Data collection

Sixty samples were selected using Purposive sampling method to assess the knowledge regarding bronchial asthma. Prior to the data collection consent was taken and the comfort of mother was ensured. The pre-test knowledge was assessed by administering structured questionnaire to the mothers for 30 minutes. The structured teaching program regarding bronchial asthma was administered by the researcher to the samples on the same day for 45 minutes. After seven days the post-test was done by using the same

structured questionnaire for 30 minutes. After the post-test the collected data were analysed by using descriptive and inferential statistics.

Results and Discussion

The aim of present study was to evaluate the effectiveness of structured teaching programme on knowledge and practice regarding management and prevention of complications of bronchial asthma among mothers of under-five asthmatic children in hospital. The study was conducted by using quasi-experimental design. The mothers of asthmatic children below the age 5 years were selected as the samples for the study. The sample size was 60. The present study findings revealed that 2(3%) of mothers had adequate knowledge, and 22 (37%) had moderately adequate knowledge, 36(60%) of mothers had inadequate knowledge in the pretest. In the post-test 37 (62%) had adequate knowledge and 23 (38%) had moderately adequate knowledge. It revealed that 44(73%) of mothers had unsatisfactory practice and 16 (27%) had moderately satisfactory practice in the post test. All of them (100%) had satisfactory practice in the post test.

The present study indicated that the post-test mean value 12.58(78.64%) of knowledge was higher than the pre-test mean value 8.35(52.18%) among mothers of under-five asthmatic children. The obtained 't' value 28.38 which was highly significant at 0.05 level ($p < 0.05$). Hence the stated hypothesis was accepted. The post-test mean value (30.65) of practice was higher than the pre-test mean value (19.53) among mothers of fewer than five asthmatic children. The obtained 't' value 26.27 was highly significant at 0.05 level ($p < 0.05$). Hence the stated hypothesis was accepted. The structured teaching programme was effective in imparting the knowledge to mothers regarding management and prevention of complications of Bronchial asthma. The average test score on asthma knowledge before the intervention was 81% for parents. Immediate post instructional test scores were significantly better with an average of 94%. There was a significant positive correlation between the knowledge and practice in the pre-test ('r'-0.66) and post-test ('r'-0.86). The association was checked by using Chi-square test and it shown that there was a significant association between knowledge of mothers with their education (Chi-Square-10.27 $p < 0.05$) No. of children (Chi-Square -7.4 $p < 0.05$) and source of information (Chi-square – 21.19 $p < 0.05$)

Table 1: Frequency and percentage distribution on mothers of under-five asthmatic children according to level of knowledge in the pre-test and post-test. N=60

S. No	Level of knowledge	Pretest		Post-test	
		No.(f)	%	No.(f)	%
1	Inadequate (<50%)	36	60	37	62
2	Moderate (50-75%)	22	37	23	38
3	Adequate (>75%)	2	3	0	0
Total		60	100	60	100

Table 2: Data of effectiveness of structured teaching programme on knowledge and practice regarding bronchial asthma

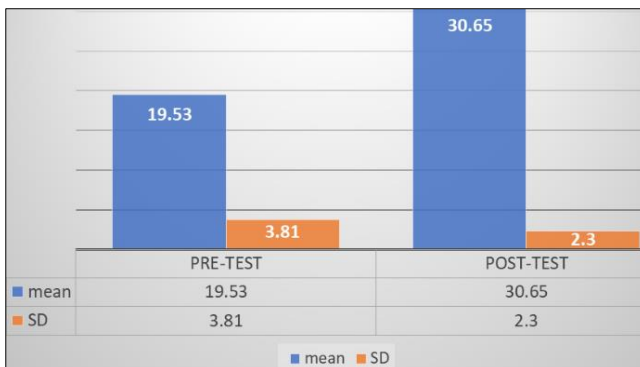
S. No	Variables	Mean	SD	't' value
	Pre-test knowledge	12.3	3.11	28.38
2	Post-test knowledge	19.15	2.3	

Significant at 0.05 level

Table 3: Data of effectiveness of structured teaching programme on knowledge and practice regarding bronchial asthma

S. No	Variables	Mean	SD	't' value
1	Pre-test practice	19.53	3.81	26.27
2	Post-test practice	30.65	3.70	

Significant at 0.05 level

**Fig 1:** Data of effectiveness of structured teaching programme on knowledge and practice regarding bronchial asthma

The obtained 't' value 28.38 which was highly significant at 0.05 level ($p < 0.05$) Hence the stated hypothesis was accepted. The obtained 't' value 26.27 was highly significant at 0.05 level ($p < 0.05$). Hence the stated hypothesis were accepted the structured teaching programme was effective in imparting the knowledge to mothers regarding management and prevention of complications of Bronchial asthma.

Limitation

1. The mothers of under-five children' responses are restricted to the tools items and the pre- and post-test evaluations conducted for the research.
2. The study is limited to quasi-experimental design.
3. There is no control group in the current study; it holds an experimental group only.
4. Selected hospitals in Bengaluru was the setting of the current study.

Conclusion

The present study assessed the knowledge among mothers of under-five asthmatic children regarding Bronchial Asthma and found that the adult clients had inadequate knowledge related to Bronchial Asthma. After implementing the structured teaching programme on Bronchial Asthma, the mothers reported that there was a significant improvement on their knowledge and practice, and much confusions regarding the asthma management got resolved. Therefore researcher can clearly state that the educational programme was effective in improving knowledge and practice regarding bronchial asthma.

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