

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Foreign Bodies Aspiration Among Mothers of Toddlers in A Selected Urban Area at Vijayapur Karnataka

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Abstract—Background: Foreign body aspiration can be a life-threatening emergency. An aspirated solid or semisolid object may lodge in the larynx or trachea. If the object is large enough to cause nearly complete obstruction of the airway, asphyxia may rapidly cause death. Lesser degrees of obstruction or passage of the obstructive object beyond the carina can result in less severe signs and symptoms. Chronic debilitating symptoms with recurrent infections might occur with delayed extraction, or the patient may remain asymptomatic. The actual aspiration event can usually be identified, although it is often not immediately appreciated.

Objectives Of Study: To assess the knowledge regarding foreign body aspiration among the mother of toddlers in selected area Vijayapur.

- To determine the effectiveness of structured teaching programme on knowledge regarding foreign body aspiration.
- To find the association between knowledge scores with selected socio demographic variables.

Methodology The research design consisted of pre-experimental research design of one group pre-test and post-test design. The population selected for the study was mothers of toddlers selected urban area Vijayapur, Karnataka. The study samples were 60 mothers and were selected by using purposive sampling technique. The development of the tool involved steps of test construction i.e., preparing the blue print, selection of items, content validation and establishment of reliability. The content validity of the questionnaire was done and modifications were done according to the suggestions given by the experts. Pre testing and reliability of the tools were done. The reliability co-efficient of the knowledge questionnaire was found to be 0.893 the tool was found to be reliable.

Results In the pre-test, level of knowledge of mothers in selected urban area Vijayapur, before using structured teaching programme. In that in that 33(55%) of mother were have inadequate knowledge, 24(40%) of them have moderate knowledge and 3(5%) of respondents have adequate knowledge of foreign body aspiration. In the post test of structured teaching programme, level of knowledge of mothers in selected urban area at Vijayapur. In that 0(0%) of mothers were have inadequate knowledge, 39(65%) of them have moderate knowledge and 21(35%) of respondents have adequate knowledge. After the distribution of structured teaching programme in selected urban area Vijayapur before using structured teaching programme. In that 33(55%) of respondents were have inadequate knowledge, 24(40%) of them have moderate knowledge and 3(5%) of respondents have adequate knowledge about foreign body aspiration. The level of knowledge of mothers in selected urban area Vijayapur after using structured teaching programme. In that 0(0%) of respondents were have inadequate knowledge, 39(65%) of them have moderate knowledge and 21(35%) of respondents have adequate knowledge.

Interpretation and Conclusion There were associations between Knowledge scores with their selected socio-demographic variables such as Education, Source of information. But there were not significant between attitude scores and selected socio demographic variables such as Age in year, Gender, religion and source of information.

Index Terms—Evaluate, effectiveness, structured teaching programme, foreign body aspiration, toddlers

I. INTRODUCTION

“A foreign body aspiration is defined as when a person inhales a foreign object into their airways which can

cause difficulty in breathing. Objects may reach the respiratory tract and the digestive tract from the mouth. It is life-threatening situation and requires timely recognition and action to minimize risk of complications”³

The most commonly aspirated foreign bodies in children include vegetable matter, nuts and round foods such as hot dogs and grapes. Foreign body (FB) aspiration occurs mainly in children 1- 3 years of age, and is one of the most frequent causes of accidental death under 12 months of age. The increased risk of FB aspiration in children is due to the different structure of the pharynx and the upper airways compared to adults.⁴

Bronchoscopy is the standard method for removal of an aspirated foreign body. An anaesthesiologist puts the child into a deep sleep and then topical lidocaine spray is used to further anesthetize the child's larynx. FBA successfully treated at the scene with the Heimlich maneuver. Tracheotomy incision (an incision that opens the child's airway) to extract a foreign body that is difficult to remove due to its size or shape. The child will typically stay in the hospital overnight after the procedure for observation. There may be airway swelling, increased secretions, infection or difficulty breathing after the foreign body is removed. If a foreign body has been left in a child for a long period of time, child may require additional bronchoscopy to make sure that all of the foreign body has been removed and that there is no residual scarring or granulation tissue. Sometimes the child requires antibiotics, steroids or inhaled bronchodilators for a brief period of time after a foreign body is removed from the airway.⁶

II. OBJECTIVES

- To assess the knowledge regarding foreign body aspiration among the mother of toddlers in selected area Vijayapur.
- To determine the effectiveness of structured teaching programme on knowledge regarding foreign body aspiration.
- To find the association between knowledge scores with selected socio demographic variables.

III. RESEARCH HYPOTHESIS

- H1: There will be significantly difference will be

found between the pre-test and post-test knowledge score of mothers regarding foreign body aspiration.

- H2: There will be significant association between knowledge of mothers regarding foreign body aspiration with selected socio demographic variables at 0.05 level of significance.

Assumptions

- Woman may have inadequate knowledge regarding cause, health problem, and prevention of foreign body aspiration.

Delimitations

The Study will be delimited to;

The study is limited to mothers of toddlers (1–3 years of age) residing in a selected urban area of Vijayapur, Karnataka.

IV. MATERIALS AND METHODS

Research Approach

Quantitative research approach was used for this study.

Research Design

One group pre test, post- test design was used for this study.

Variable:

- Independent variable: - Structured teaching programme on foreign body aspiration
- Dependent variable: - Knowledge of mothers regarding foreign body aspiration.
- Sociodemographic variables: Age in year, Religion, type of family, education, occupation of mother, source of information.

Inclusion Criteria:

- At age Group of 25-45 years
- Willing to participate in the study
- Who are available at the time of data collection
- Who can read and write Kannada and English.

Exclusion criteria

- Not willing to participate in the study
- Not available at the time of the data collection
- Who are less than 25 years of age and more than 45 years of age

Setting of the study

- The present study was conducted at selected urban areas at Vijayapur, Karnataka.

Study Population

- The population for this study was selected mothers of toddlers' age Group of 25-45 year.

Sampling Technique

- The non randomized purposive sampling technique used for this study

Sample size

The sample size for the present study is 60

DESCRIPTION OF THE INSTRUMENTS

The data collection instrument is divided in to 2 parts:

Part I: Structured questionnaire for socio-demographical variables

Part II: structured knowledge questionnaire on foreign body aspiration.

V. DATA ANALYSIS

Data will be analyzed by using descriptive and inferential statistics.

- Frequency, percentage, mean, median, and standard deviation will be used to describe demographic variables and knowledge scores.
- The effectiveness of the Structured Teaching Programme will be determined by comparing pre-test and post-test knowledge scores using the paired t-test.
- Association between pre-test knowledge scores and selected demographic variables will be determined using the Chi-square test. The level of significance will be set at $p < 0.05$.

VI. RESULTS AND DISCUSSION

1. Demographic variables of respondents

Age

33(55%) of the mothers were between the age group 20 to 25 years, 21(35%) of them were between the age group 26 to 30 years and 6 (10%) were between age group of 31 to 35 years.

Religion.

Majority of the mothers 48(80%) were Hindu, 12 (20%) were Muslim respondents.

Type of Family

39(65%) of the respondents were belongs to nuclear family, 14(23.3%) of the respondents were belong joint family and 7 (11.7%) were belongs to extended family.

Education

6(10%) of respondents were completed primary education, 16(26.7%) of them were completed high school education, 26(43.3%) of respondents were have educational status of PUC and 12 (20%) of them were have educational status of degree and above.

Occupation

29(48.3%) of respondents were Housewives, 18(30%) of them were working as private employer, and 13 (21.7%) of them were working as Govt. employees

Source of Information

8(13.3%) of respondents were getting information from electronic media, 31(51.7%) of them were getting information from Mass media, 6(10%) of respondents were getting information from family and friends and 15 (25%) of them were getting information from Health team worker.

Section II: Analysis of pretest and posttest knowledge on foreign bodies' aspiration among mothers of toddlers.

a) Pre-test knowledge level

n=60

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	<50%	33	55.0
Moderate	50-75%	24	40.0
Adequate	>75%	3	5.0
Total		60	100

Pretest knowledge of Mothers regarding foreign bodies' aspiration and also reveals that the level of knowledge of Mothers before using structured teaching programme. In that 33(55%) of respondents were have inadequate knowledge, 24(40%) of them have moderate knowledge and 3(5%) of respondents have adequate knowledge.

b) Post-test knowledge regarding foreign bodies aspiration among Mothers

n=60

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	<50%	0	0.0
Moderate	50-75%	39	65.0
Adequate	>75%	21	35.0
Total		60	100

Post-test knowledge of Mothers regarding foreign bodies' aspiration after using structured teaching programme. In that 0(0%) of respondents were have inadequate knowledge, 39(65%) of them have moderate knowledge and 21(35%) of respondents have adequate knowledge.

Section III: Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Foreign Bodies Aspiration Among Mothers

Knowledge	Mean	SD	Mean %	t -value
Pre test	16.3	3.5	54.3	31.6**
Post test	26.5	2.7	88.3	
Enhancement	10.2	2.5	34	

** Significant at $P < 0.01$, (df 59, t value 2)

According to this mother's pretest knowledge regarding foreign bodies' aspiration was 16.3 and post-test knowledge regarding foreign bodies aspiration was 26.5, which is significant, so there is enough evidence that using structured teaching programme, is effective in enhancing the knowledge of the mothers of toddlers regarding foreign bodies' aspiration.

Section IV: To Determine the Association between Demographic Variables and Level of Knowledge of Mothers

S. No	Demographic Variables	No	%	No of Respondents				Chisquare
				≤ Median (27)		> Median (33)		
1	Age (in years)							
	a) 20-22	33	55.0	19	57.6	14	42.4	4.72
	b) 26-30	21	35.0	6	28.6	15	71.4	df 2
	c) 26-28	6	10.0	2	33.3	4	66.7	N. S
	d) 28 and above	0	0.0	0	0.0	0	0.0	
2	Religion							
	a) Hindu	48	80.0	20	41.7	28	58.3	0.18
	b) Muslim	12	20.0	7	58.3	5	41.7	df 1
	c) Christian	0	0.0	0	0.0	0	0.0	N. S
	d) Others	0	0.0	0	0.0	0	0.0	
3	Type of family:							
	a) nuclear family	39	65.0	19	48.7	20	51.3	1
	b) Joint family	14	23.3	6	42.9	8	57.1	df 2
	c) Extended family	7	11.7	2	28.6	5	71.4	N. S
4	Education							
	a) Primary	6	10.0	3	50.0	3	50.0	12.9
	b) High school	16	26.7	9	56.3	7	43.8	df 3
	c) PUC	26	43.3	15	57.7	11	42.3	S
	d) Degree and above	12	20.0	0	0.0	12	100.0	
5	Occupation of Mother:							
	a) House wife	29	48.3	17	58.6	12	41.4	4.9
	b) Private Employer	18	30.0	7	38.9	11	61.1	df 2
	c) Govt. employer	13	21.7	3	23.1	10	76.9	N. S
	d) daily wages worker	0	0.0					
6	Source of information							
	a) electronic media	8	13.3	5	62.5	3	37.5	9.5
	b) Mass media	31	51.7	18	58.1	13	41.9	df 3
	c) Family and friends	6	10.0	2	33.3	4	66.7	S
	d) Health team members	15	25.0	2	13.3	13	86.7	

N.S- Not Significant

S- Significant at $p < 0.05$ level

The above Table reveals that there were associations between Knowledge scores with their selected socio-demographic variables such as Education, Source of information. But there were not significant between attitude scores and selected socio demographic variables such as Age in year, Gender, religion and source of information.

Hence H1 is accepted

VII. CONCLUSION

The effectiveness of structured teaching programme in terms of gaining knowledge score in post-test. According to this mother's pretest knowledge regarding foreign bodies aspiration was 16.3 and post-test knowledge regarding foreign bodies aspiration was 26.5, t-value is 31.6. $p < 0.01$. Which is significant, so there is enough evidence that self-instructional module is effective in enhancing the knowledge of the mothers regarding foreign bodies aspiration. There were associations between Knowledge scores with their selected socio-demographic variables such as Education, Source of information. But there were not significant between attitude scores and selected socio demographic variables such as Age in year, Gender, religion and source of information.

Hence H1 is accepted

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CONFLICT OF INTEREST-

None declared

ETHICAL CLEARANCE-

Ethical Clearance Certificate was obtained by Institutional Ethical Committee.

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