

# “Effectiveness of Hands-on Skill Training Program for Choking among the Mothers of Under Five Children in Selected Area.”

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## Abstract

**Purpose:** Aim of the study was to assess the effectiveness of hands on skill training program for choking among the mothers of under five children in selected area.

**Methods:** This study used a quasi- experimental research design (one-group pretest-posttest design). Subjects for the current study were mothers (in the age group 20 – 45 years) of under five children, were selected by using simple random sampling technique. Researcher used the hands on skill training program with training manual to develop skills among the mothers of under five children regarding choking. The study was conducted during rural community postings focusing mothers residing in rural areas.

**Results:** The statistical analysis based study objectives revealed that there was significant improvement in knowledge scores of mothers of under five children. In pretest, 70% of the mothers of under five children had poor knowledge & 30% of them had average knowledge regarding choking. In posttest, 18% of them had average knowledge and 82% of them had good knowledge regarding choking. This indicates that the knowledge among mothers improved remarkably after skill training program.

Fisher’s exact test was used for finding association between the level of knowledge regarding hands on skill training of choking and selected demographic variables. Since p-value corresponding to monthly income of the family was small (less than 0.05), only monthly income of the family was found to have significant association with the knowledge.

**Conclusion:** The study findings conclude that hands on skill training program is effective to improve knowledge regarding choking.

**Keywords:** Effectiveness, hands on skill training program, choking, mothers, under five children.

## Introduction

### Background

Choking refers to a blockage of upper airways by food or other objects resulting in interruption of breathing. It is a medical emergency that needs immediate action by anyone near by the victim to save life. Choking is a major cause of illness and death in the paediatric population under the age of 5 years. Children at this age spent more time in their school and are at high risk during their feeding and playing. Immediate provision of first aid in response to choking by a preschool teacher will help to decrease the risk of developing life-threatening complications, length of hospital stays, the cost of treatment, and death.<sup>1</sup>

A study revealed that 165 children treated by endoscopy, 69% were 3 years of age or younger. Foreign bodies most often ingested or aspirated were food (in 36 children) and coins (in 60 children). Out of 449 children whose deaths after aspirating foreign bodies were reported to the CPSC, 65% were younger than 3 years. Balloons caused 29% of deaths overall. Conforming objects such as balloons caused a significantly ( $P < .001$ ) higher proportion of deaths in those aged 3 years or older (60%) vs those younger than 3 years (33%). Of the 101 objects causing deaths that we could analyse, 14 met current standards for use by children of any age.<sup>2</sup>

This indicates that providing training program on knowledge and skill regarding choking is essential to prevent deaths occurring out of choking among pediatric population. Also need to emphasize that prevention is always better than cure, therefore both the parents are needed to teach about prevention of accidents among pediatric age group.<sup>3</sup>

### Objectives

This study was undertaken with following objectives:

1. To assess the level of knowledge regarding choking among the mother of under five children.
2. To evaluate the effectiveness of hands on skill training program and regarding choking among under five children
3. To find the association between the knowledge scores of hands on skill training regarding choking and selected demographic variables.

### Methods

Ethics statement: The research study was conducted after the approval from Institutional Ethics Committee via letter No: 3024 dtd. 30.01.2024 from Dr. D. Y. Patil Institute of Nursing Education, Pimpri, Pune - 411018

**Study design:** The current study adopted a quasi- experimental research design (one-group pretest-posttest design). Subjects for this study were mothers (in the age group 20 – 45 years) of under five children. 50 subjects were selected by using simple random sampling technique. Researcher used the hands on skill training program with training manual to develop skills among the mothers of under five children regarding choking. The study was conducted during rural community postings focusing mothers residing in rural areas.

### Schematic representation of research design

Pre-test	Intervention	Post-test
O <sub>1</sub>	X	O <sub>2</sub>

### Setting

Setting is the location where the study is conducted.<sup>4</sup>

Setting for this study was rural community. This setting was selected as reviews suggested that there is lack of awareness of management of choking among mothers. So selecting subjects from rural community was primary concern.

### Participants

Participants were selected using simple random sampling technique. The inclusion & exclusion criteria helps reducing biased selection of the subjects.<sup>5</sup>

The inclusion & exclusion criteria considered for current study were as follows:

#### Inclusion criteria:

1. Mothers of only under five children from selected rural area.
2. Mothers of under five children who are willing to participate.

3. Mothers of under five children who can read, write & speak Hindi and Marathi.

#### Exclusion criteria:

1. Mothers of under five year children who are not willing to participate in the study.
2. Mothers participating in another study that would interfere with the outcome of this study.
3. Mother of under five year children who won't be able to attend the full hands on skill training program.

#### Variables

A variable is a characteristics, events or responses that represent the elements of the research questions in a detectable way.<sup>6</sup>

The independent variable in this study is hands on skill training program regarding choking.

The dependent variable in this study is level of knowledge regarding choking in under five children.

#### Sample size

The study involved 50 subjects which were selected by using simple random sampling technique. Subjects who qualified inclusion & exclusion criteria were only selected.

#### Statistical methods:

Differential & Inferential statistical methods were used to analyze the collected data.

#### Schematic Representation of Study

Population

Samples (mothers of under five children)

Pre-Test

Hands on skill training program on choking for mothers

Post -Test

**H<sub>0</sub>:** There is no significant difference in knowledge scores regarding choking

**Fig 1: Schematic Representation of Study**

Results

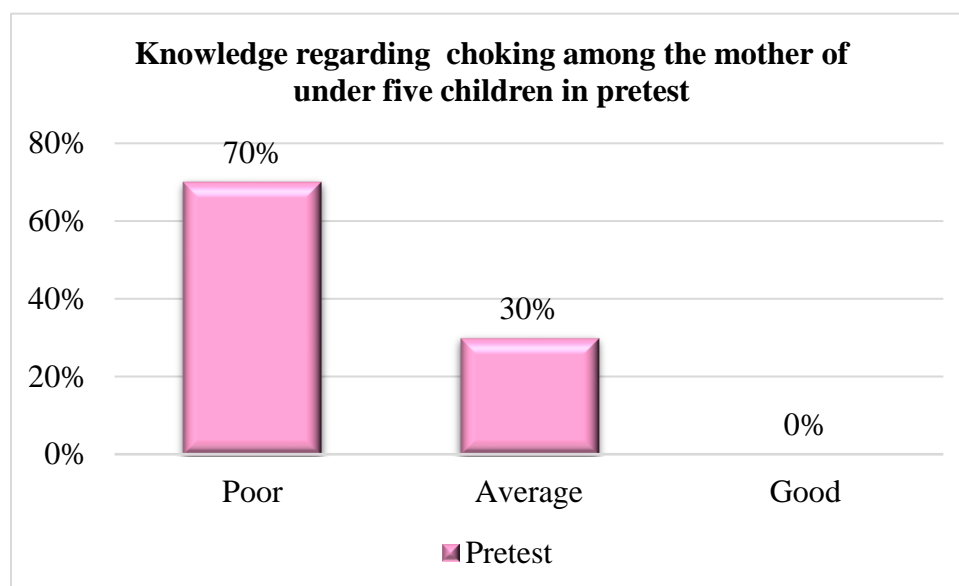
**H<sub>1</sub>:** There is significant difference in knowledge scores regarding choking

**Table 1: Description of samples (mothers of under five children) based on their personal characteristics**

Demographic variable	Freq	%
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<b>Age</b>		
18-25 years	28	56%
26-35 years	17	34%
36-45 years	5	10%
<b>Education</b>		
No formal education	7	14%
Primary	17	34%
Secondary	23	46%
Graduate degree and above	3	6%
<b>Occupation</b>		
Homemaker	45	90%
Service	5	10%
<b>Type of the family</b>		
Nuclear	40	80%
Joint	10	20%
<b>Monthly income of the family</b>		
Rs. 10,000 – Rs. 20,000	27	54%
Rs. 20,001 – Rs. 30,000	17	34%
Rs. 30,001 – Rs. 40,000	3	6%
Above Rs. 40,000	3	6%

**Fig 2: Knowledge regarding choking among the mothers of under five children.**



**Table 2: Skills regarding choking among the mothers of under five children.**

**N=50**

Skills	Pretest	
	Freq	%
Poor	50	100%
Average	0	0%
Good	0	0%

**Table 3: Effectiveness of hands-on skill training program and compare pre-test and post-test knowledge score regarding choking among mothers of under five children N=50**

Knowledge	Pretest		Posttest	
	Freq	%	Freq	%
Poor	35	70%	0	0%
Average	15	30%	9	18%
Good	0	0%	41	82%

**Table 4: Paired t-test for the effectiveness of hands-on skill training program on knowledge regarding choking among under five children N=50**

	Mean	SD	T	df	p-value
Pretest	4.7	1.6	26.6	49	0.000
Posttest	11.8	1.6			

**Table 5: Paired t-test for the effectiveness of hands-on skill training program on skills regarding choking among mothers of under five children N=50**

	Mean	SD	T	df	p-value
Pretest	1.3	0.8	39.3	49	0.000
Posttest	14.9	2.3			

**Table 6: Fisher's exact test for the association between the level of knowledge regarding hands on skill training of choking and selected demographic variables N=50**

Demographic variable		Knowledge		p-value
		Average	Poor	
Age	18-25 years	9	19	0.734
	26-35 years	4	13	
	36-45 years	2	3	
Education	No formal education	3	4	0.272
	Primary	3	14	

		Secondary	7	16	
		Graduate degree and above	2	1	
Occupation		Homemaker	13	32	0.629
		Service	2	3	
Type of the family		Nuclear	13	27	0.702
		Joint	2	8	
Monthly income of the family		Rs. 10,000 – Rs. 20,000	8	19	0.048
		Rs. 20,001 – Rs. 30,000	4	13	
		Rs. 30,001 – Rs. 40,000	3	0	
		Above Rs. 40,000	0	3	

Table 6 shows that, Fisher's exact test was used to find out the association between the level of knowledge regarding hands on skill training of choking and selected demographic variables. Since p-value corresponding to monthly income of the family is small (less than 0.05), the demographic variable monthly income of the family was found to have significant association with the knowledge regarding hands on skill training of choking.

### Discussion

A Quasi-experimental research study was conducted in 2023 to assess the effectiveness of hands on skill training program on prevention & management of choking among under 5 children for mothers. Hands-on skill training program is the systematically organized program in which the mothers of children are educated, demonstrated and allowed to re-demonstrate the first aid for choking. First aid care is initial support provided to child in the medical emergency. Family and society are the two main institutions which mould every child's development. A Quasi-experimental research design was used. Sixty mothers having children below 5 years of age (30 in experimental group and 30 in control group) were selected by using purposive sampling technique from Village Ballo Majra, Mohali and Bad Majra Mohali, Punjab. <sup>7</sup>

The findings of the study showed that hands-on skill training program was highly effective to improve the level of knowledge and skills on first aid for choking among mothers of children. The study concluded that hands-on skill training program was highly effective to improve the level of knowledge and skills among mothers of children. Hands-on skill training program is a effective method of educational system in which the mothers of children are educated, demonstrated and allowed to re-demonstrate the first aid for choking. Hence, hands-on skill training program can easily adopted for improving knowledge and skills on first aid for choking among mothers of children.<sup>7</sup>

Similarly in the present study the hands on skill training program for choking among the mothers of under five children was found effective.

### Key results

The study objectives were

1. To assess the level of knowledge regarding choking among the mother of under five children.
2. To evaluate the effectiveness of hands on skill training program and regarding choking among under five children
3. To find the association between the knowledge scores of hands on skill training regarding choking and selected demographic variables.

The study findings revealed that the hands on skill training regarding choking among mothers of under 5 children was effective as the knowledge scores were very low in Pre Test as compared to Post Test scores.

### Conclusion

Paired t-test was applied to evaluate the effectiveness of hands-on skill training program on knowledge regarding choking among under five children. Average knowledge score in pre-test was 4.7 which increased to 11.8 in post-test. T-value for this test was 26.6 with 49 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. It is evident that the knowledge among mothers increased significantly after hands-on skill training program. Hands-on skill training program is significantly effective in improving the knowledge among mothers regarding choking.

Paired t-test was applied to evaluate the effectiveness of hands-on skill training program on skills regarding choking among under five children. Average skills score in pretest was 1.3 which increased to 14.9 in posttest. T-value for this test was 39.3 with 49 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. It is evident that the skills among mothers increased significantly after hands-on skill training program. Hands-on skill training program is significantly effective in improving the skills among mothers regarding choking.

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### 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. **Authors' Contribution**

All the authors have contributed to the planning, implementation and analysis of the research study and its presentation in the form of the manuscript.

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