Library Progress International *Print version ISSN 0970 1052*
Vol.46, No.1, January -June2026P.116-123 *Online version ISSN 2320 317X*

Original Article *Available online at www.bpasjournals.com*

Study to assess the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area..

Ms. Manjiri Rajesh Madavi [1], Ms. Ashwini Mankar[2]

[1] Lecturer at Dr. Ketki Patil College of Nursing Jalgaon, Maharashtra University of Health Sciences Nashik, Maharashtra, India

[2] Associate Professor, Head of Department of Child Health Nursing, Godavari College of Nursing, Jalgaon, Maharashtra University of Health Sciences Nashik, Maharashtra, India.

How to cite this paper as: Ms. Manjiri Rajesh Madavi , Ms. Ashwini Mankar (2026) Study to assess the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area.. *Library Progress International, 46(1), 124-152*

ABSTRACT

A Study to Assess the Effectiveness of Hands-On Skill Training Programme on Knowledge Regarding First Aid for Choking Among Caregivers of Under-Five Children at Selected Rural Area. Objectives of the Study:1. To assess the existing knowledge regarding first aid for choking among caregivers of under-five children. 2.To evaluate the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking.3. To determine the association between pre-test knowledge scores and selected demographic variables of caregivers. Methodology: A pre-experimental one-group pre-test post-test design was used for the study. The study was conducted in selected rural areas. A total of 120 caregivers of under-five children were selected using a non-probability purposive sampling technique. A structured knowledge questionnaire and observational checklist were used as data collection tools. Pre-test was conducted, followed by a structured hands-on skill training programme. Post-test assessment was done using the same tools. Data were analyzed using descriptive and inferential statistics.Results: The findings revealed that the mean pre-test knowledge score was 14.72 (SD = 2.76), which increased to 23.57 (SD = 2.15) in the post-test. The mean skill score improved from 15.55 (SD = 2.92) to 24.86 (SD = 1.32) after the training. The paired t-test values were significant ($p < 0.05$), indicating the effectiveness of the intervention. A statistically significant association was found between pre-test knowledge and selected demographic variables such as education and previous exposure to first aid. Conclusion:The hands-on skill training programme was effective in significantly improving the knowledge and skills of caregivers regarding first aid for choking among under-five children. This study highlights the need for regular community-based first aid training to reduce preventable childhood emergencies in rural areas..

Keywords: Effectiveness, Hands On Skill Training Programme, First Aid, Choking, Knowledge, Caregivers of Under Five Children..

INTRODUCTION

Choking or acute airway obstruction is the emergency condition which is usually first deal by general public and only then by health professionals. It has been documented in literature that educating the public about choking hazards and its management can positively affect the incidence of choking events and mortality.

Choking is defined as "a foreign object that is stuck in the pharynx (back of the throat) or trachea (windpipe) that causes a blockage of, or muscular spasm in the airway. If there is mild airway obstruction, the child should be able to clear it, but if it is complete, he or she will be unable to speak, cough or breathe. Unless there is intervention at this point the casualty will become unconscious and could die. Choking is characterized by the sudden onset of respiratory distress associated with coughing or gagging, or stridor (loud, harsh, high pitched respiratory sound). Similar signs and symptoms may also be associated with other causes of airway obstruction, such laryngitis, or epiglottitis, which require different management.

In the young, the foreign body is likely to be food or a toy, while in the elderly it is almost always food. There is distribution in the ages of patients, affecting primarily the young between the ages of 1 to 3 years and the elderly who are greater than 60 years. In 2015, 5,051 people died from choking. Out of those, 2,848 (56%) were older

.

than 74 years. Choking is the fourth leading cause of unintentional death, the leading cause of infantile death, and the fourth leading cause of death among preschool children. The most common objects on which children choke are food, coins, balloons, and other toys. In a center for disease control review of nonfatal choking episodes in children that were treated in the emergency department, 13% of choking episodes were associate with coins and 19% were caused by candy or gum..

The American Academy of Pediatrics (AAP) Section on Breastfeeding and many other health organizations recommend exclusive breastfeeding for the first 6 months of life. The AAP Committee on Nutrition recommends that complementary foods be introduced between 4 and 6 months of age Children younger than 4 years and children with chewing and swallowing disorders are at greater risk of food-related choking. Before the molars erupt, children are able to bite off a piece of food with their incisors but are unable to grind it adequately in preparation for swallowing. Children 3 to 4 years old have molars but are still learning to chew effectively. Children at this age also may be easily distracted when they need to pay full attention to the task of eating. Children with swallowing disorders are at increased risk of choking. Neuromuscular disorders, developmental delay, traumatic brain injury, and other primary and secondary medical conditions may adversely affect the complex neuromuscular coordination involved in the swallowing process. Therefore, caregivers should pay special attention to choking prevention among children with such neurologic impairments regardless of the age of the child

OBJECTIVES

To assess the existing knowledge regarding first aid for choking in children among the caregivers of under five children.

To evaluate the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area.

To find out the association between the pre-test knowledge score regarding first aid of choking in children with their selected demographic variables.

SCOPE AND METHODOLOGY

SCOPE OF THE STUDY

This study will help to understand the effectiveness of hands on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children.

The study will create hands on skill training programme on knowledge regarding first aid for choking among caregiver of under five children.

METHODOLOGY

Methodology is generally a guideline system for solving a problem, with specific components such as phases, tasks, methods, techniques and tools.

RESEARCH APPROACH: In this study Quantitative approach was used.

RESEARCH DESIGN: Present study is pre-experimental one group pre-test post-test research design. Keeping in view the objective of the study, the investigator will observe the subject prior to the intervention i.e. pre-test will be taken will observed the subject prior the intervention. Pretest will be taken next the effectiveness of hands-on skill training programme on caregiver of under five children will be administer to the subject. Then again the group will be assessed by post test and Observational Checklist.

VARIABLE OF THE STUDY

According to Suresh K. Sharma,Research variable can be defined as qualities, attribute, properties or characteristics which are observed and measured in a natural setting without manipulation and establishing cause and effect relationship.

INDEPENDENT VARIABLES

The independent variable in this study is Hands on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas.

DEPENDENT VARIABLES:

The dependent variable in this study is knowledge of the caregivers of under five children on first aid for

choking.

POPULATION

Population refers to the entire aggregation of cases of all the units in which research is interested.

In this study the population is Caregivers of under five children.

TARGET POPULATION

Polit and Hungler state that the target population is the entire aggregate generalization or which represent the entire group that meets the criteria for inclusion in the study.

In the present study, the target population consist ofcaregivers of under five children at selected rural areas.

ACCESSIBLE POPULATION

Accessible population refers to the portion of target population which the researcher has reasonable access.

Caregiver of under five children at selected rural areaswho are available at the time of data collection.

SAMPLE

According to Suresh k. Sharma, Sample is the sub set of the population elements. It is the process of selecting a portion of the population to represent the entire population.

In the present study, the samples selected are the caregiver of under five children who fulfills the inclusion criteria at selected rural areas.

SAMPLE SIZE

The number of units and subjects gather for inclusion in the study is called sample size. Sample drawn out should reflect population traits. sampling size should be adequate to represent the population. The total sample size is 120 Caregiver of under five children at selected rural areas.

CRITERIA FOR SELECTION OF SAMPLES

Sampling criteria is that which specifies the characteristics that the samples of the population must possess. The following criteria are used in the present study to select sample .

a) Inclusion Criteria: - Caregivers of under five children who are-

1. available at the time of data collection.
2. can speak, read, write and understand marathi language.
3. residing at selected rural areas.
4. willing to participate in the study.
5. he/she must be adult. (above the age of 19 years)

b) Exclusion Criteria: - Caregivers of under five children who are-

1. participated in the similar programme within last 6 month.
2. sick at the time of data collection.
3. blind, deaf, dumb or mentally challenged caregivers.

TOOL PREPARATION

Tool used for the research study was structured questionnaire and observational checklist which was prepared to assess effectiveness Hands on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area .The tool was prepared after extensive review of literature search, consultation with experts, and based on the past clinical experience of the investigation.

DESCRIPTION OF THE TOOL

According to compact Oxford reference Dictionary (2003), it is a device or implement used to carry out a particular function based on the objectives of the study. After designing an experiment, the statistical treatment of the problem begins.

THE TOOLS CONSIST OF FOLLOWING SECTION:

Part A: Demographic data consists of 06 questions.

Part B: Knowledge items consists of 30 questions.

Part C: Checklist to evaluate the effectiveness of hands-on skill training programme regarding first aid for choking.

Measurement of Knowledge score of caregiver of under five children regarding first aid for choking.

Table no. III.2. knowledge score of caregiver of under five children regarding first aid for choking.

LEVEL OF KNOWLEDGE	SCORE
POOR	0 – 10
AVERAGE	11 – 20
GOOD	21 – 30

Measurement of checklist score of caregivers of under five children regarding first aid for choking as follow

Checklist Skill	SCORE
POOR SKILL	0 – 10
AVERAGE SKILL	11– 20
GOOD SKILL	21 – 30

FEASIBILITY OF THE STUDY

Feasibility of the study was assessed by conducting a pilot study. There was no difficulty in conducting the pilot study because the permission was granted to conduct the study by respective authority of principal, researcher established rapport with them easily and they were also very cooperative and they were ready to participate in the study, so the study was feasible from investigator's point of view. Tool was tested on 12 subjects were eligible for the study and the researcher found that tool was feasible. These samples were excluded from the main study.

PILOT STUDY

A pilot study is a miniature run of the main study. Pilot study helped the investigator to assess the effectiveness of the data collection plan, identify the inadequacies of the plan make the modification as required. Find out the feasibility of conducting the study and to determine the methods of statistical analysis. After having obtained formal administrative approval, pilot study was conducted in selected caregiver of under five children of rural area from 23/12/2024 to 29/12/2024. The respondents selected for the pilot study was excluded from the main study. The purpose of the study was explained to the respondents. Confidentiality was assured and a written consent was obtained from them. 12 caregiver of under-five children's in selected rural area who fulfil the inclusion criteria were selected for pilot study. The samples included in the pilot study were excluded in the main study. 20 – 25 minutes time is needed for respondents to take the questionnaire. The respondents clearly understood the wordings for the questionnaire. The data was collected and analysed by applying descriptive and inferential statistics. The study was found to be feasible and practicable except for the reason of getting the sample. No further change was made in the tool. After the pilot study presentation, the investigator proceeded for the main study.

VALIDITY

It is the appropriateness, completeness and usefulness of an attribute measuring research instrument. To ensure content validity, tool was submitted to 15 experts from the field of child health nursing (n=15) and one statistician (n=1) and one English (n=1) editor. Out of these 11 validated contents of the tools were received from expert with their valuable suggestion and comments. Their suggestions were taken into consideration and necessary modifications were incorporated in the final preparation of the standardized questionnaires.

RELIABILITY

Polit and Hungler (1999) state that one important characteristics of measuring tool is its reliability, which refers to the degree of consistency, or accuracy with which an instrument 12 measures an attribute, was tried

on 120 caregiver of under five children at selected rural area. Reliability of the tool calculated using split half method. Reliability of the knowledge tool was found to be 0.86 and the reliability of observational checklist was found to be 0.95.

METHOD OF DATA COLLECTION

Phase- I

The investigator obtained permission from the Grampanchayat for rural area to conduct the main study. Main study was conducted from 5/01/25 to 11/01/25.

Phase- II

The investigator introduced herself to the caregivers and maintained good communication and informed them about the nature of the study so as to ensure better cooperation during data collection. The investigator approached the caregivers of selected rural areas and explained the purposes of the study and explained how it will be beneficial for them.Before collecting the data, the investigator informed about the importance of this study and ascertained the willingness of the participants. The main study was started by choosing 120 subjects by using non- probability purposive sampling technique from selected rural area.

Phase- III

Written informed consent was taken and assured regarding the confidentiality of the matter. The investigator assess the subject with structure knowledge questionnaire and observational checklist. A structured questionnaire was administered to assess the caregivers baseline knowledge regarding first aid for choking. An observation checklist was used to assess practical skills .

Phase- IV

The researcher conducted a hands-on skill training programme for caregivers. The session included an explanation and demonstration of first aid techniques for managing choking in both infants and children Manikins or alternative models were used to enhance the practical experience. The total duration of the programme was 1 to 2 hours

Phase- V

After completion of the training programme, the same structured questionnaire and observation checklist were administered to the participants to assess the improvement in their knowledge and skills related to choking first aid. All responses were recorded systematically for analysis. Confidentiality and anonymity of the participants were strictly maintained throughout the data collection process.

DATA ANALYSIS

Plan for data analysis level of knowledge

DATA ANALYSIS	METHOD	REMARK
Descriptive Statistics	Frequency and percentage	To describe the distribution of demographic variables
	Mean, median, standard deviation	To determine the knowledge regarding choking
Inferential statistics	Paired "t" test The level of statistical significance was set at $p < 0.05$.	To find out effectiveness of hands-on skill training programme for first aid for choking among caregivers of under five children.
	Chi-square test	To find out association between the pre-test knowledge score of first aid for choking with their selected demographical variables.

REVIEW OF LITERATURE

Review of literature broadens the understanding and gives insight into the problem under study. This chapter attempts to presents a broad‘s review of studies done, the methodology adopted and conclusion arrived by earlier investigators and helps to study the problems in depth. It also serves as a valuable quick to understand, what has been done what is still unknown and untested.The present study is to assess the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area.

Literature Related to Knowledge and Awareness About First Aid for Choking

Literature Related to Effectiveness of Hands-On or Structured Training Programmes

Literature Related to Role of Caregivers and First Aid Application in Choking Emergencies.

Literature Related to Knowledge and Awareness About First Aid for Choking

Nazma Ahmed, et al.(2023) This study. sample consisted of 40 mothers of under-five children, selected using a non-probability purposive sampling technique. The results indicated that 21 (52.5%) of the mothers had moderately adequate knowledge and 19 (47.5%) had inadequate knowledge regarding first aid for choking before the intervention. After the structured teaching program, 22 (55%) had moderately adequate knowledge, and 18 (45%) had adequate knowledge. The paired 't' test value of $t = 17.130$ was found to be statistically significant at $p < 0.001$, indicating that the teaching program was effective in improving the level of knowledge regarding first aid for choking among mothers of under- five children.In conclusion, the structured teaching program was effective in bringing about the desired changes in the knowledge of the mothers of under-five children, which is crucial for preventing and managing choking emergencies in children.

Nasrin Sarabi, et al.(2022) ,was conducted mothers were found to have a very limited knowledge about the issues, including the right age for beginning chewing and smashing solid food in children, the most common food resulting in choking, and the best way to assess the risk of an object leading to choking of a child under the age of four. Furthermore, 10.9% of the mothers in the intervention group, as well as 12.7% of them in the control group were discovered to adopt Heimlich maneuver when facing the choking accident. The given percentages reached 67.3% and 16.4% in the intervention and control groups, respectively, after providing the mothers with proper training. Only 16.4% of mothers in the intervention group and 18.2% of them in the control group demonstrated the required knowledge of opening the airway in infants before the intervention. After offering the video education, however, this knowledge was increased by 68.5% and 20% in the intervention group and control group, respectively. Their knowledge of the risk factors for choking in control group ($P = 0.000$) and intervention group ($P = 0.001$) was significant before and after offering the video education; regarding the methods of administering first aid for choking children, however, the result was significant only in the intervention group ($P = 0.000$).

II.Literature Related to Effectiveness of Hands-On or Structured Training Programmes

Heena kumari, et al.(2023) ,Quasi-experimental study was conducted choking is a life- threatening condition which occur due to blockage of the upper airway by food or other objects, which prevents child from normal breathing. Family and society are the two main institutions which mould one child’s development material and method is a Quasi- experimental research design was used. Sixty mothers having children less than 5 year 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. The findings of the present 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 present 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 allowing to redemonstrate 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.

Pradeep Kumar Yadav (2020), any object large or small that finds its way into the body either through a wound in the skin or via one of the body orifices such as the nose, eye, ear, vagina or rectum is called as a “foreign body”. Choking is the blockage or hindrance of respiration by a foreign-body obstruction in the internal airway, including the pharynx, hypo pharynx, and trachea. Airway obstruction can be fatal if it leads to serious impairment of oxygenation and ventilation. Choking is a leading cause of morbidity and mortality among children, especially those who are 3 years of age or younger. This is largely because of the developmental vulnerabilities of a young child's airway and the underdeveloped ability to chew and swallow food. Young children also commonly put objects in their mouths as they explore their environments. The most common objects on which children choke are food, coins, balloons, and other toys. Certain

characteristics, including shape, size, and consistency, of certain toys and foods increase their potential to cause choking among children.

Anggun - Sulistiyani, et al, (2020), Choking deserves attention because it often happens to children. The inappropriate handling of choking becomes a vigilance. Caution and handling of choking become crucial even to cadres of Posyandu (the centre for pre- and post-natal health care and information for women and for children under five) in Karangsari Village. Thus, providing them with health education is necessary. identify the influence of health education about handling choking on children through booklet media on the knowledge level of Posyandu cadres in Karangsari Village. Research methods is a quantitative research using pre-experimental design with one group pre-test and post-test design approach. The research sample was taken through a total sampling technique. There were 30 cadres fulfilling the inclusion and exclusion criteria. The research instrument consists of pre and post-test questionnaire, which was modified and had been tested for its validity and reliability. Research result was research result indicates that the knowledge average value obtained by the 30 respondents before being given health education is 61.50 and after being given health education is 88.00. The result of bivariate analysis using t-test sample paired test shows the p-value of 0.0001.

Literature Related to Role of Caregivers and First Aid Application in Choking Emergencies.

Thirunavukkarasu A et al. (2024) conducted an analytical study among 390 Saudi adults in primary health centers to assess knowledge, attitude, and practice (KAP) regarding first aid. Using a validated tool, they found KAP scores in 43.3%, 38.9%, and 36.4% of participants, respectively. Significant positive correlations were observed between knowledge and attitude (rho = 0.42, p = 0.001), knowledge and practice (rho = 0.57, p = 0.001), and attitude and practice (rho = 0.41, p = 0.001). Participants aged 30–40 years and those trained in first aid had significantly higher knowledge, while males and private-sector employees showed lower attitudes.. It underscores the importance of hands-on skill training to improve first aid preparedness. Evaluating KAP relationships in our study can provide deeper insights into caregivers' in rural settings.

Ali Maalim Issack (2021), Study was conducted that 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 pediatric population under the age of 5 years. 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.

Salih AM et al. (2016) Airway foreign bodies (AFBs) is an interdisciplinary area between emergency medicine, pediatrics and otolaryngology. It is a life-threatening condition that is not infrequently seen; however, it is poorly covered in medical literature. Accidental aspiration of an element into airways is a widespread clinical scenario among children under 3 years, predominantly males. Moreover, it is the leading cause of infantile deaths and the fourth one among preschool children. AFBs episodes may be either witnessed or missed. Presence of a witness for the inhalation is diagnostic. The later usually present with persistent active cough. A classical triad of paroxysmal cough, wheezing, and dyspnoea/decreased air entry was reported, though many presentations have inconsistent findings. Close supervision of pediatrics is the hallmark of prevention. Caregivers should ensure a safe surrounding milieu, including the toys their offspring play with. Immediate complications result from direct obstruction or injury by the inhaled object.

RESULTS, DISCUSSION AND FINDINGS

SECTION I

Deals with analysis of demographic data of the caregivers of under five children at selected rural areas in terms of frequency and percentage.

Table IV 1: Frequency & percentage distribution of the caregivers of under five children at selected rural area.

n=120

Sr. No.	Variable	Groups	Frequency	Percentage
1	Age (in years)	19-24	65	54.17
		25-30	55	45.83
		31-37	0	0.00

		39-44	0	0.00
		46 & above	0	0.00
2	**Type of family**	Nuclear	34	28.33
		Joint	44	36.67
		Extended	42	35.00
3	**Family Income**	Less than Rs 5000	24	20.00
		Rs 5001 - Rs 15000	21	17.50
		Rs 15001 -Rs 25000	45	37.50
		Above Rs 25001	30	25.00
4	**Educational Status**	Primary level	19	15.83
		Secondary level	7	5.83
		Higher secondary level	75	62.50
		Graduate	19	15.83
		Post graduate and above	0	0.00
5	**Occupation**	Homemaker	34	28.33
		Employed	55	45.83
		Self employed	27	22.50
		Unemployed	4	3.33
6	**Previous Knowledge about first aid for Choking**	Family and friends	46	38.33
		Healthcare provider	61	50.83
		Books or magazines	9	7.50
		Online resources / social media	4	3.33
		Other	0	0.00
		No previous knowledge	0	0.00

Table IV 2: Frequency & percentage distribution of caregivers of under five children according to age .

n=120

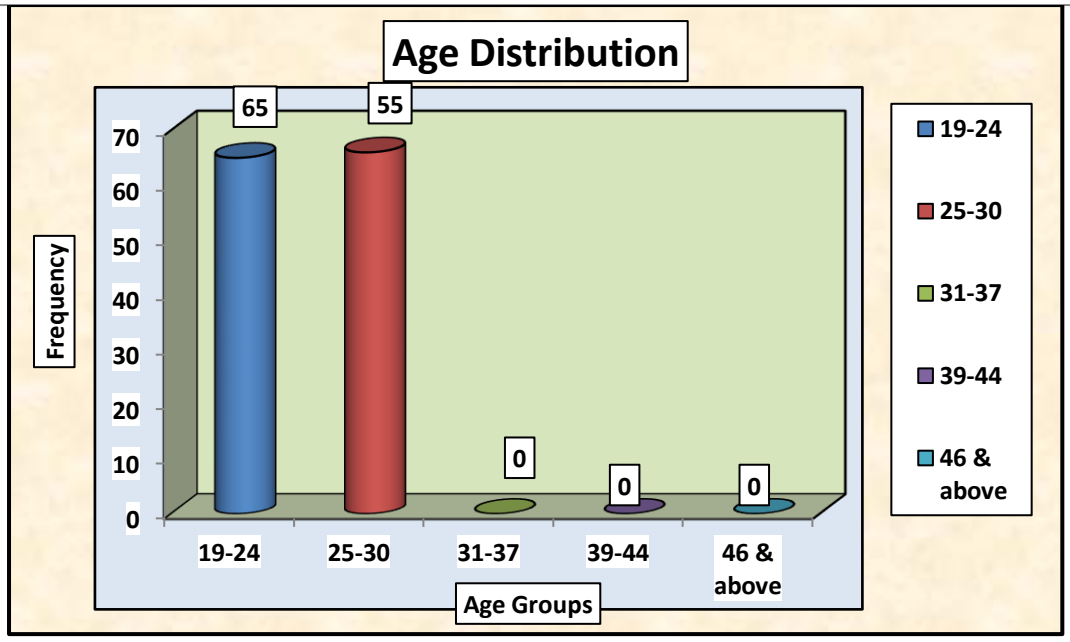

Figure No IV -1: Distribution of caregivers of under five children according to age.

The above table and following figure shows that, in the study, according to age of caregivers of under five children at selected rural areas, 54.17% of them were from age group 19-24 years, 45.83% from age group 25-30 years, no one from age group 31-37 years, no one from age group 39-44 years and no one caregivers were 46 and above years of age.

Table IV 3: Frequency & percentage distribution of caregivers of under five children according to type of family.

n=120

Sr. No.	Variable	Groups	Frequency	Percentage
2	Type of family	Nuclear	34	28.33
		Joint	44	36.67
		Extended	42	35.00

The above table and following figure shows that, in the study, according to type of family of caregivers of under five children at selected rural areas, 28.33% of them were from nuclear families, 36.67% from joint families and 35% caregivers were from extended type of families.

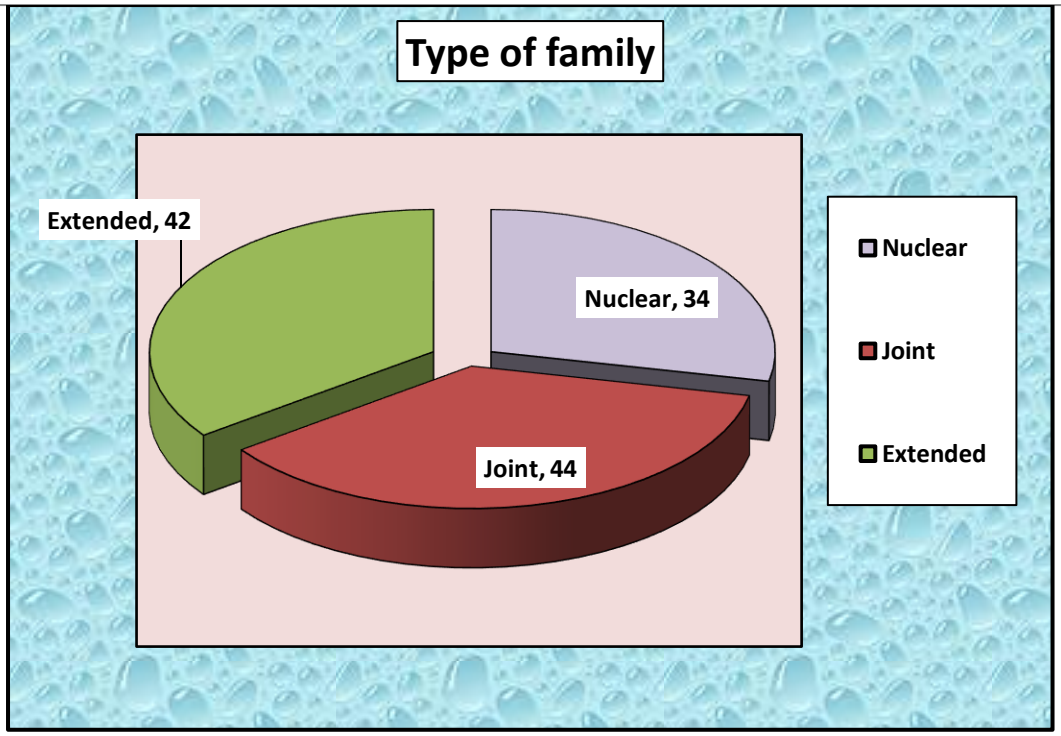

Figure No IV -2: Distribution of caregivers of under five children according to type of family.

Table IV 4: Frequency & percentage distribution of caregivers of under five children according to family income.

n=120

Sr. No.	Variable	Groups	Frequency	Percentage
3	Family Income	Less than Rs 5000	24	20.00
		Rs 5001 - Rs 15000	21	17.50
		Rs 15001 -Rs 25000	45	37.50
		Above Rs 25001	30	25.00

The above table and following figure shows that, in the study, according to family income of caregivers of under five children at selected rural areas, 20% of them had income less than Rs 5000, 17.50% of them had income in Rs 5001 - Rs 15000, 37.50% answered as Rs 15001 -Rs 25000 and 25% of caregivers had income above Rs 25001

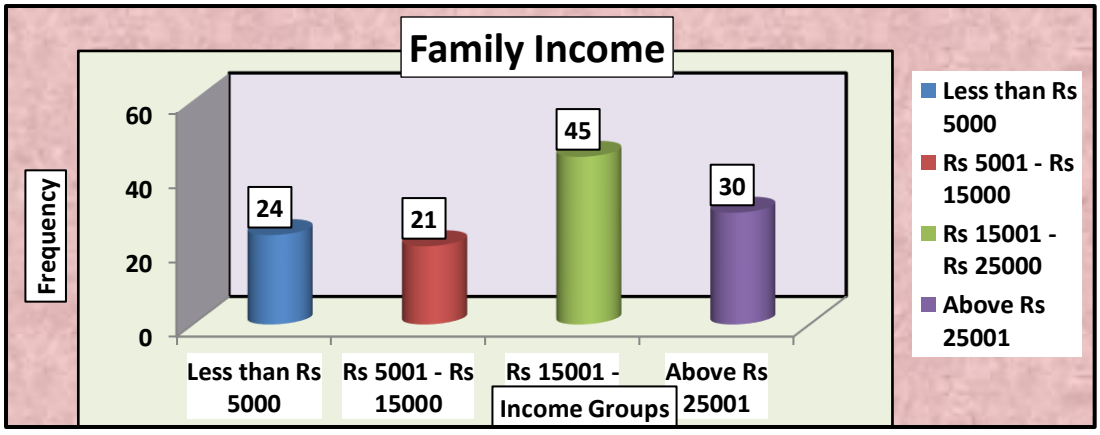

Figure No IV -3: Distribution of caregivers of under five children according to family income.

Table IV 5: Frequency & percentage distribution of caregivers of under five children according to educational status.

n=120

Sr. No.	Variable	Groups	Frequency	Percentage
4	Educational Status	Primary level	19	15.83
		Secondary level	7	5.83
		Higher secondary level	75	62.50
		Graduate	19	15.83
		Post graduate and above	0	0.00

The above table and following figure shows that, in the study, according to educational status of caregivers of under five children at selected rural areas, 15.83% of them educated up to primary level, 5.83% educated up to secondary level, 62.50% up to Higher secondary level, 15.83% of them were graduates and no one caregivers were postgraduates.

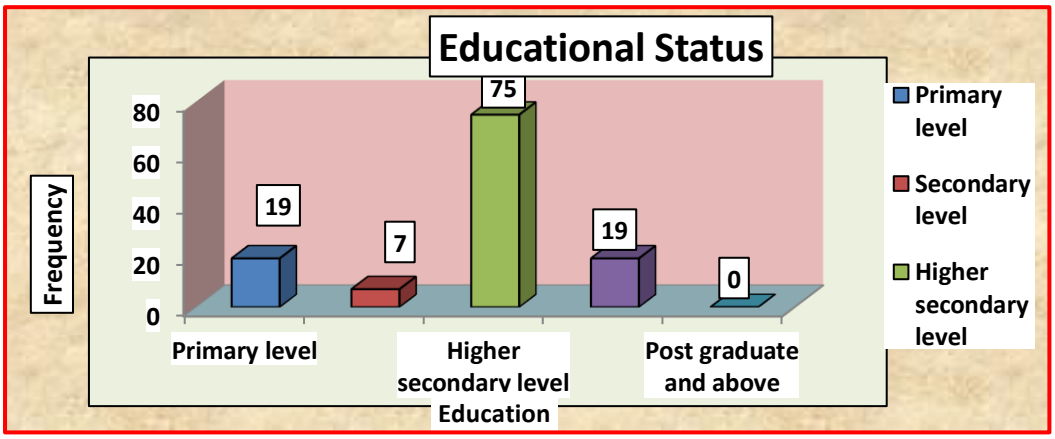

Figure No IV 4: Distribution of caregivers of under five children according to educational status.

Table 6: Frequency & percentage distribution of caregivers of under five children according to occupation.

n=120

Sr. No.	Variable	Groups	Frequency	Percentage
5	Occupation	Homemaker	34	28.33
		Employed	55	45.83
		Self employed	27	22.50
		Unemployed	4	3.33

The above table and following figure shows that, in the study, according to occupation of caregivers of under five children at selected rural areas, 28.33% of them were homemakers, 45.83% of them were employed, 22.50% answered as self-employed and 3.33% of them were unemployed.

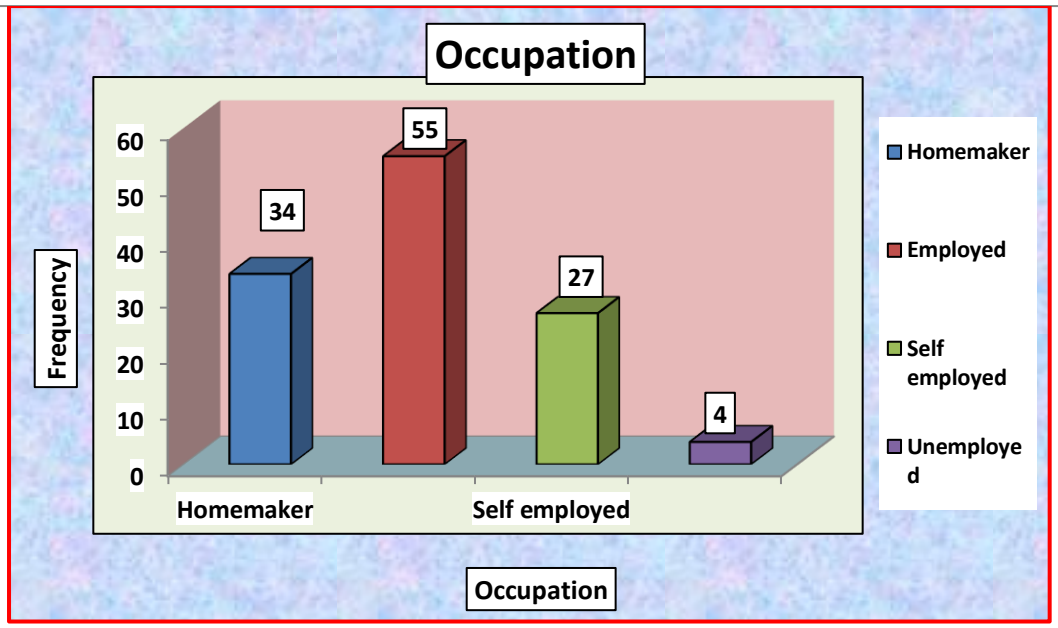

Figure No IV -5: Distribution of caregivers of under five children according to occupation.

Table 7: Frequency & percentage distribution of caregivers of under five children according to previous knowledge.

n=120

Sr. No.	Variable	Groups	Frequency	Percentage
6	**Previous Knowledge about first aid for Choking**	Family and friends	46	38.33
		Healthcare provider	61	50.83
		Books or magazines	9	7.50
		Online resources / social media	4	3.33
		Other	0	0.00
		No previous knowledge	0	0.00

The above table and following figure shows that, in the study, according to previous knowledge about first aid for choking among caregivers of under five children, 38.33% of them answered from family and friends, 50.83% answered as healthcare provider, 7.50% answered as books or magazines, 3.33% from online resources / social media, no one from other sources.

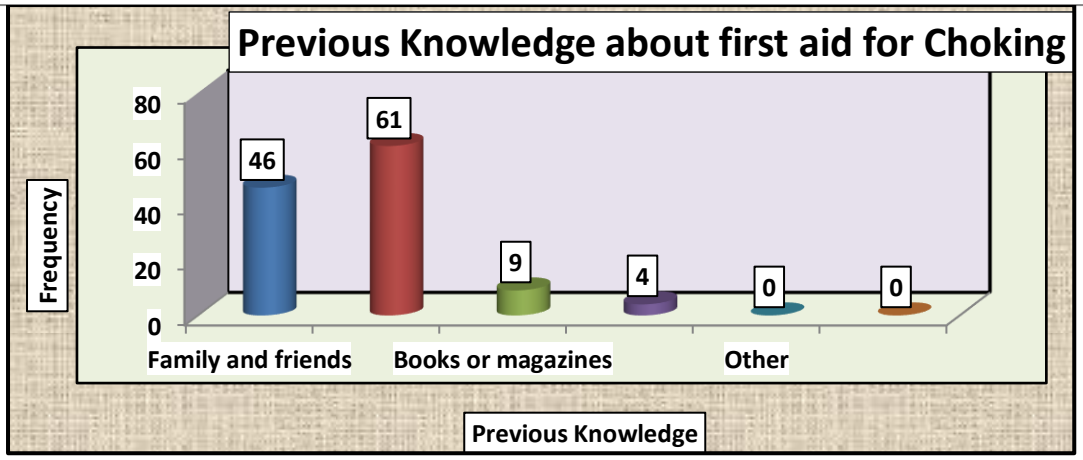

Figure No IV -6: Distribution of caregivers of under five children according to previous knowledge.1

SECTION II

Deals with analysis of data related to assessment of knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas in terms of frequency and percentage.

Table IV 8: General assessments of Knowledge PRE Test.

n=120

Variable	Groups	Score	Pre Test	
			Frequency	Percentage
KNOWLEDGE	Poor	0-10	3	2.50
	Average	11-20	115	95.83
	Good	21-30	2	1.67
KNOWLEDGE	Minimum		10	
	Maximum		22	
	Average (SD)		14.72 (2.76)	

At the time of pretest, assessment of the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas, 2.50% of them had poor, 95.83% average knowledge and 1.67% of them had good knowledge.Average knowledge score at the time of pretest was 14.72 with standard deviation of 2.76. The minimum score of knowledge was 10 with maximum score of 22.

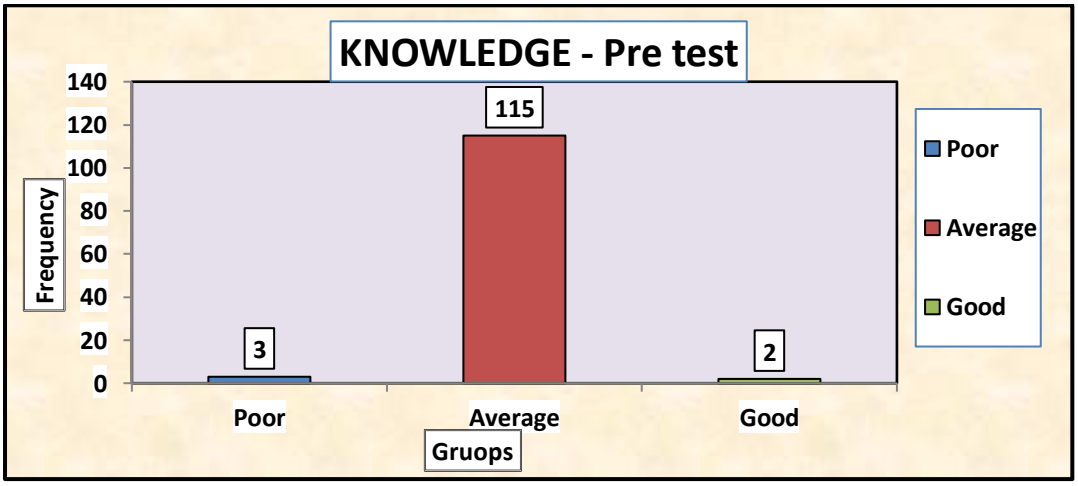

Figure No IV - 7: General assessments of Knowledge PRE Test.

Table IV 9: General assessments of Knowledge POST Test.

n=120

Variable	Groups	Score	Post Test	
			Frequency	Percentage
KNOWLEDGE	Poor	0-10	0	0.00
	Average	11-20.	10	8.33
	Good	21-30	110	91.67
KNOWLEDGE	Minimum		18	
	Maximum		28	
	Average (SD)		23.57 (2.15)	

At the time of posttest, assessment of the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas, no one of them had poor, 8.33% average knowledge and 91.67% of them had good knowledge.Average knowledge score at the time of pretest was 23.57 with standard deviation of 2.15. The minimum score of knowledge was 18 with maximum score of 28.

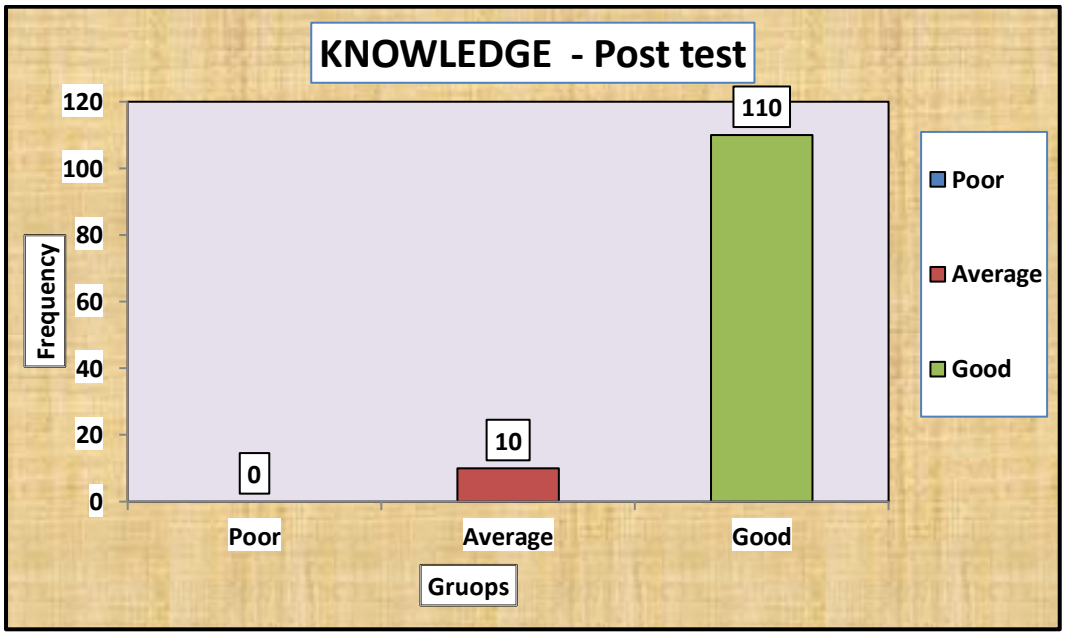

Figure No IV - 8: General assessments of Knowledge POST Test.

Deals with analysis of data related to assessment of the pre & posttest knowledge in terms of frequency and percentage.

Table IV 10: General assessments of Knowledge- PRE & POST test.

n=120

Variable	Groups	Score	Pre Test		Post Test	
			Frequency	Percentage	Frequency	Percentage
KNOWLEDGE	Poor	0-10	3	2.50	0	0.00
	Average	11-20.	115	95.83	10	8.33
	Good	21-30	2	1.67	110	91.67
KNOWLEDGE	Minimum		10		18	

	Maximum	**22**	**28**
	Average (SD)	**14.72 (2.76)**	**23.57 (2.15)**

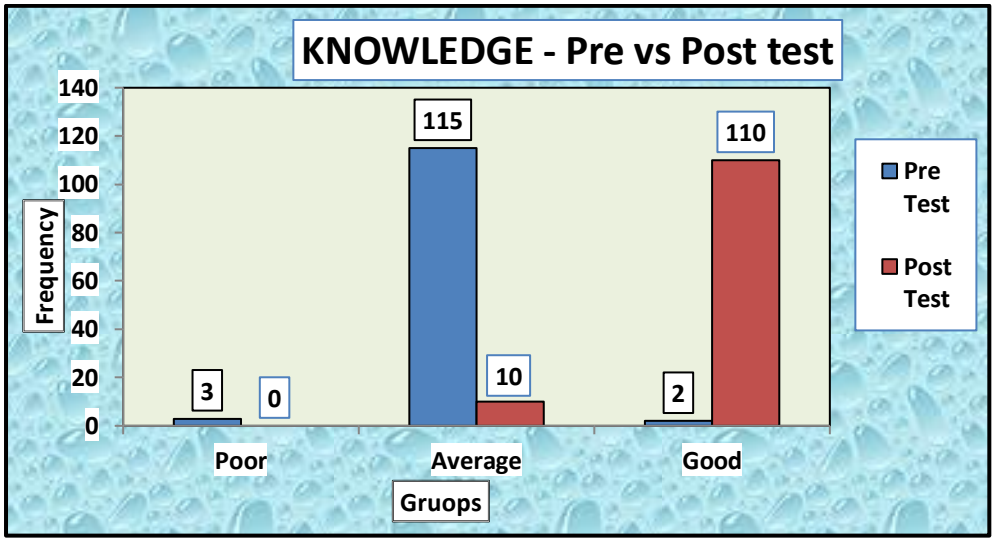

Figure No IV -9: General assessments of Knowledge - PRE & POST test.

GENERAL ASSESSMENTS OF KNOWLEDGE- PRE & POST TEST

For assessment purpose the total score of knowledge was divided into three groups like poor (0-10 score), average (11-20 score) and good (21-30 score).

Pre Test:

At the time of pretest, assessment of the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas, 2.50% of them had poor, 95.83% average knowledge and 1.67% of them had good knowledge.

Average knowledge score at the time of pretest was 14.72 with standard deviation of 2.76. The minimum score of knowledge was 10 with maximum score of 22.

Post Test:

At the time of posttest, assessment of the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas, no one of them had poor, 8.33% average knowledge and 91.67% of them had good knowledge.

Average knowledge score at the time of pretest was 23.57 with standard deviation of 2.15. The minimum score of knowledge was 18 with maximum score of 28.

Deals with analysis of data related to assessment of hands-on skill training programme regarding first aid for choking in children among caregivers of under five children at selected rural areas in terms of frequency and percentage.

Table IV 11: General assessments of Skill - PRE Test.

n=120

Variable	**Groups**	**Score**	**Pre Test**	
			Frequency	**Percentage**
SKILL	Poor Skill	0-10	7	5.83
	Average Skill	11-20	102	85.00
	Good Skill	21-30	11	9.17
SKILL	Minimum		10	

	Maximum	24
	Average (SD)	15.55 (2.92)

At the time of pretest, assessment of the hands-on skill training programme regarding first aid for choking in children among caregivers of under five children at selected rural areas, 5.83% of them had poor, 85% average skill and 9.17% of them had good skill. Average skill score at the time of pretest was 15.55 with standard deviation of 2.92. The minimum score of skill was 10 with maximum score of 24.

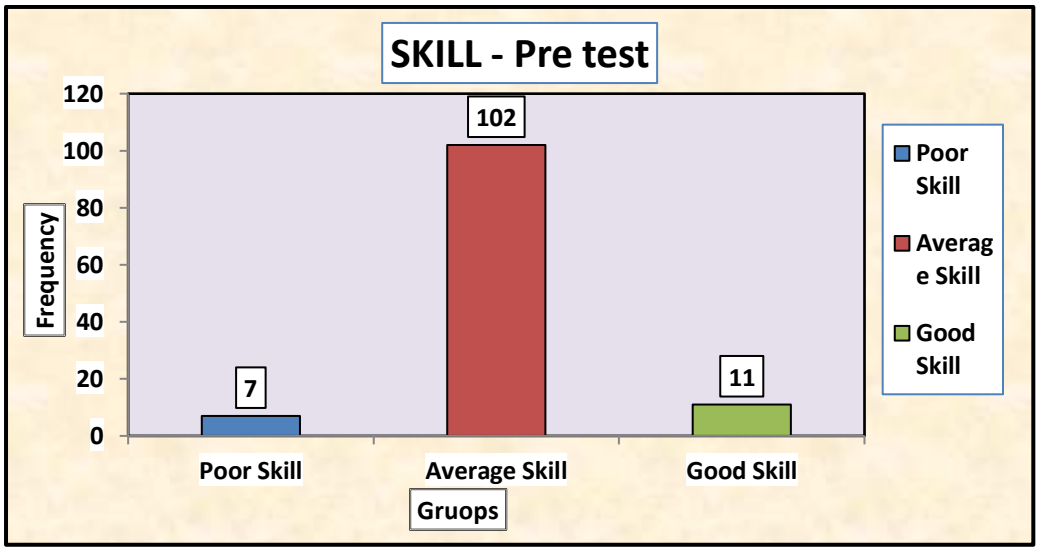

Figure No IV - 10: General assessments of Skill PRE Test.

Table IV 12: General assessments of Skill POST Test.

n=120

Variable	Groups	Score	Post Test	
			Frequency	Percentage
SKILL	Poor Skill	0-10	0	0.00
	Average Skill	11-20	1	0.83
	Good Skill	21-30	119	99.17
SKILL	Minimum		20	
	Maximum		27	
	Average (SD)		24.86 (1.32)	

At the time of posttest, assessment of the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas, no one of them had poor, 0.83% average skill and 99.17% of them had good skill.

Average skill score at the time of posttest was 24.86 with standard deviation of 1.32. The minimum score of skill was 20 with maximum score of 27.

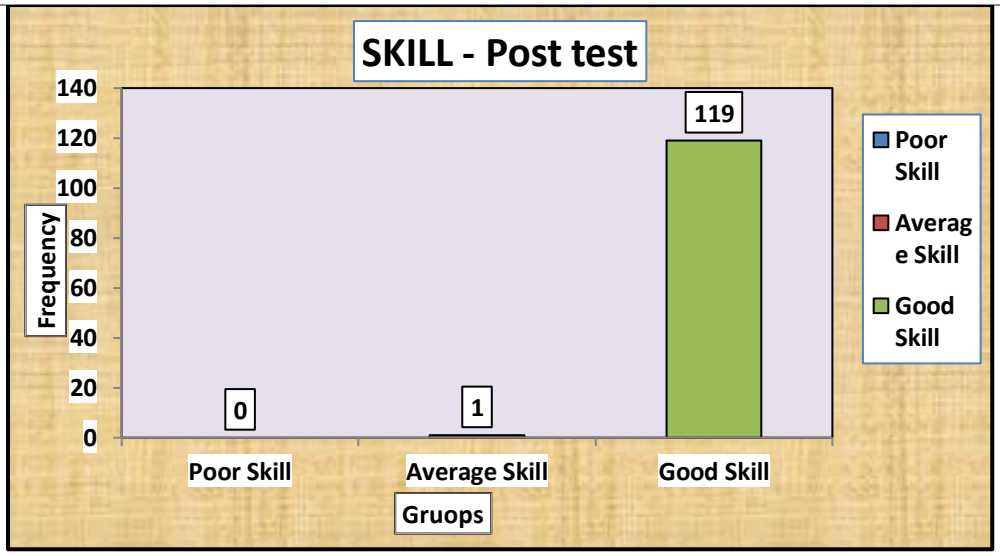

Figure No IV - 11: General assessments of Skill POST Test

Deals with analysis of data related to assessment of the pre & posttest skill in terms of frequency and percentage.

Table IV 13: General assessments of Skill- PRE & POST test.

n=120

Variable	Groups	Score	Pre Test		Post Test	
			Frequency	Percentage	Frequency	Percentage
SKILL	Poor Skill	0-10	7	5.83	0	0.00
	Average Skill	11-20.	102	85.00	1	0.83
	Good Skill	21-30	11	9.17	119	99.17
SKILL	Minimum		10		20	
	Maximum		24		27	
	Average (SD)		15.55 (2.92)		24.86 (1.32)	

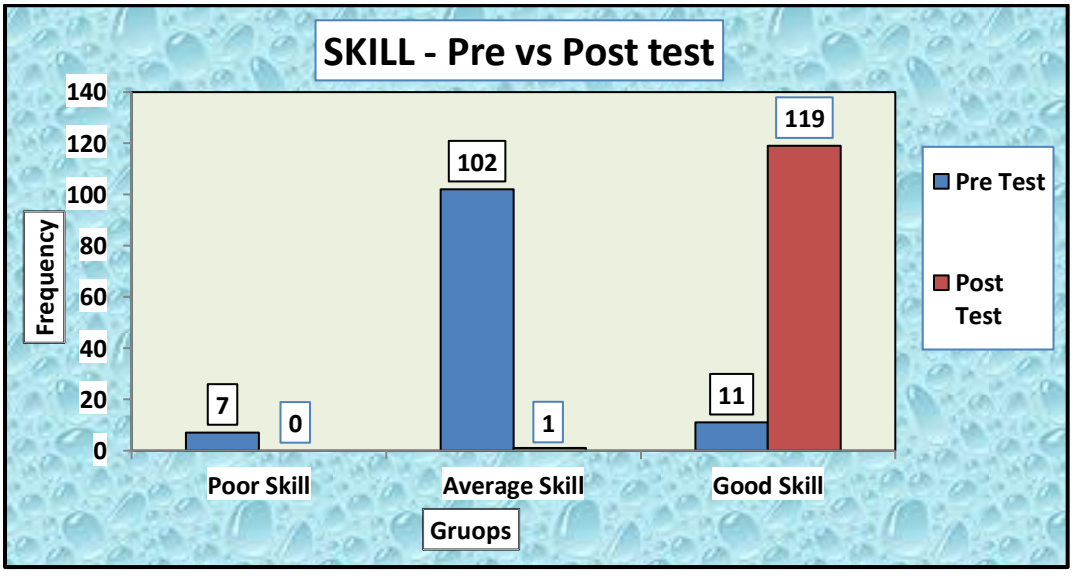

Figure No IV -12: General assessments of Skill - PRE & POST test.

GENERAL ASSESSMENTS OF SKILL- PRE & POST TEST

For assessment purpose the total score of skill was divided into three groups like poor skills (0-10 score), average skills (11-20 score) and good skills (21-30 score).

Pre Test:

At the time of pretest, assessment of the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas, 5.83% of them had poor, 85% average skill and 9.17% of them had good skill.

Average skill score at the time of pretest was 15.55 with standard deviation of 2.92. The minimum score of skill was 10 with maximum score of 24.

Post Test:

At the time of posttest, assessment of the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas, no one of them had poor, 0.83% average skill and 99.17% of them had good skill.

Average skill score at the time of posttest was 24.86 with standard deviation of 1.32. The minimum score of skill was 20 with maximum score of 27.

SECTION III

Deals with analysis of data related to the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas.

Table IV 14: Comparison of the pre and posttest Knowledge (paired t test).

n=120

Group	Frequency	Mean	S.D.	t value	P value
Pre Test	120	14.72	2.76	31.03	0.000
Post Test	120	23.57	2.15		

The comparisons of pretest and posttest means of knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas was done by paired t test. The pretest average score was 14.72 with standard deviation of 2.76. The posttest average score was 23.57 with standard deviation of 2.15. The test statistics value of paired t test was 31.03 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest knowledge.

Shows that, hands on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children was effective.

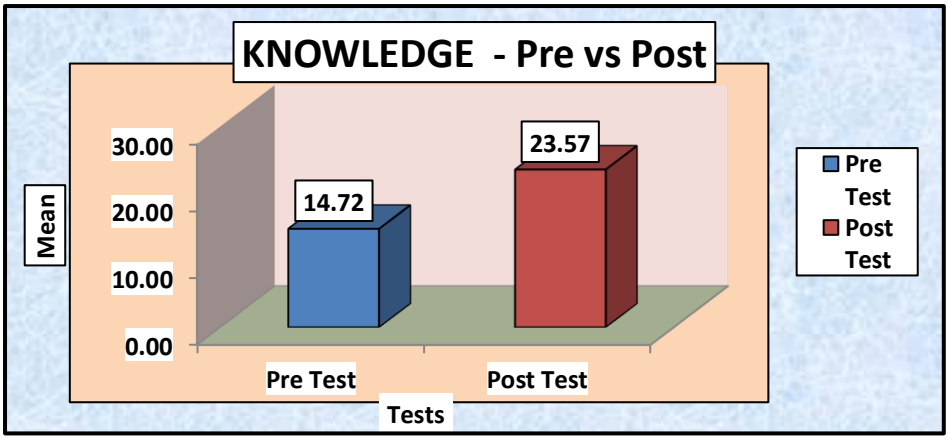

Figure IV 13: Comparison of average pre and posttest Knowledge score.

Deals with analysis of data related to the effectiveness of hands-on skill training programme regarding first aid for choking in children among caregivers of under five children at selected rural area.

Table IV 15: Comparison of the pre and posttest Skill (paired t test)

Group	Frequency	Mean	S.D.	t value	P value
Pre Test	120	15.55	2.92	32.20	0.000
Post Test	120	24.86	1.32		

The comparisons of pretest and posttest means of skill regarding first aid for choking in children among caregivers of under five children at selected rural areas was done by paired t test. The pretest average score was 15.55 with standard deviation of 2.92. The posttest average score was 24.86 with standard deviation of 1.32.

The test statistics value of paired t test was 32.20 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest skill.

Shows that, hands on skill training programme regarding first aid for choking in children among caregivers of under five children was effective.

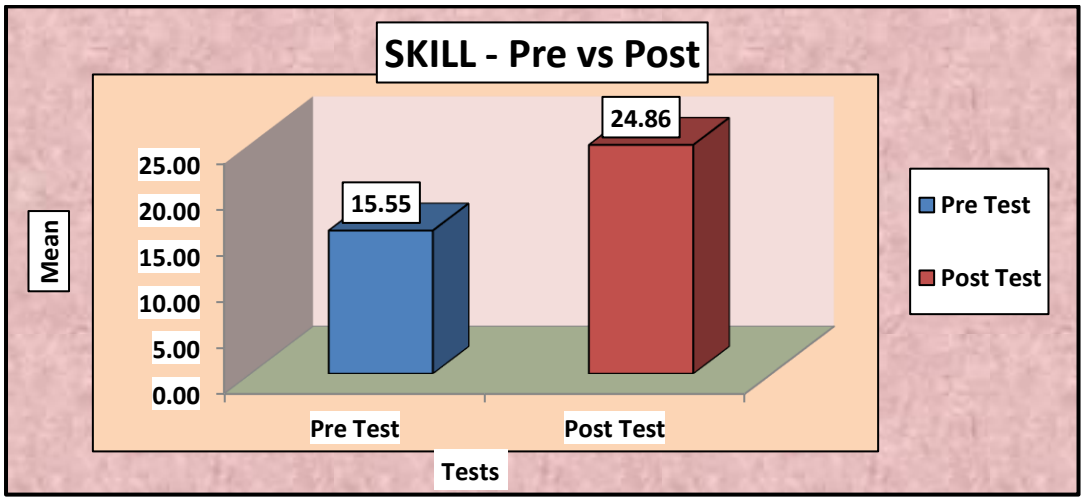

Figure IV 14: Comparison of average pre and posttest Skill score.

SECTION IV

Deals with analysis of data related to the association between knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas with selected demographic variables.

ASSOCIATION OF KNOWLEDGE SCORE IN RELATION TO DEMOGRAPHIC VARIABLES

Table IV 16: Association of Knowledge with demographic variables

Variable	Groups	KNOWLEDGE - PRE		Chi Square	d.f.	p value	Significance
		below Md	Above Md				
Age (in years)	19-24	32	33	1.39	1	0.24	Not Significant
	25-30	33	22				
	31-37	0	0				
	39-44	0	0				

	46 & above	0	0				
Type of family	Nuclear	24	10	8.18	2	**0.017**	**Significant**
	Joint	25	19				
	Extended	16	26				
Family Income	Less than Rs 5000	20	4	12.50	3	**0.006**	**Significant**
	Rs 5001 - Rs 15000	12	9				
	Rs 15001 -Rs 25000	22	23				
	Above Rs 25001	11	19				
Educational Status	Primary level	9	10	2.10	3	0.55	Not Significant
	Secondary level	4	3				
	Higher secondary level	44	31				
	Graduate	8	11				
	Post graduate and above	0	0				
Occupation	Homemaker	16	18	2.27	3	0.52	Not Significant
	Employed	29	26				
	Self employed	17	10				
	Unemployed	3	1				
Previous Knowledge about first aid for Choking	Family and friends	22	24	4.05	3	0.26	Not Significant
	Healthcare provider	37	24				
	Books or magazines	3	6				
	Online resources / social media	3	1				
	Other	0	0				
	No previous knowledge	0	0				

SSOCIATION OF KNOWLEDGE SCORE IN RELATION TO DEMOGRAPHIC VARIABLES – PRE TEST

The chi square test was used to see association between knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas with selected demographic variables.

The test was conducted at 5% level of significance.

Significant Association:

For the demographic variables type of family and family income, the p value of association test with pre knowledge was less than 0.05. That means, the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas was associated with these demographic variables.

Concludes that, there was significant association of these demographic variables with the pretest knowledge.

No Significant Association:

For the demographic variables age, educational status, occupation etc., the p value of association test with pre knowledge was more than 0.05. That means, the knowledge regarding first aid for chcking in children

among caregivers of under five children at selected rural areas was not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the pretest knowledge.

Deals with analysis of data related to the association between skills regarding first aid for choking in children among caregivers of under five children at selected rural areas with selected demographic variables.

ASSOCIATION OF SKILL SCORE IN RELATION TO DEMOGRAPHIC VARIABLES

Table IV 17: Association of Skill with demographic variables

Variable	Groups	SKILL - PRE		Chi Square	d.f.	p value	Significance
		below Md	Above Md				
Age (in years)	19-24	32	33	0.96	1	0.33	Not Significant
	25-30	32	23				
	31-37	0	0				
	39-44	0	0				
	46 & above	0	0				
Type of family	Nuclear	16	18	1.97	2	0.37	Not Significant
	Joint	22	22				
	Extended	26	16				
Family Income	Less than Rs 5000	7	17	8.13	3	**0.043**	**Significant**
	Rs 5001 - Rs 15000	11	10				
	Rs 15001 -Rs 25000	26	19				
	Above Rs 25001	20	10				
Educational Status	Primary level	8	11	4.47	3	0.21	Not Significant
	Secondary level	2	5				
	Higher secondary level	41	34				
	Graduate	13	6				
	Post graduate and above	0	0				
Occupation	Homemaker	20	14	5.49	3	0.14	Not Significant
	Employed	28	27				
	Self employed	16	11				
	Unemployed	0	4				
Previous Knowledge about first aid for Choking	Family and friends	24	22	10.06	3	**0.018**	**Significant**
	Healthcare provider	38	23				
	Books or magazines	2	7				
	Online resources / social media	0	4				
	Other	0	0				
	No previous knowledge	0	0				

ASSOCIATION OF SKILL SCORE IN RELATION TO DEMOGRAPHIC VARIABLES – PRE TEST

The chi square test was used to see association between skills regarding first aid for choking in children among caregivers of under five children at selected rural areas with selected demographic variables.

The test was conducted at 5% level of significance

Significant Association:

For the demographic variables family income and previous knowledge, the p value of association test with pre skill was less than 0.05. That means, the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas was associated with these demographic variables.

Concludes that, there was significant association of these demographic variables with the pretest skill.

No Significant Association:

For the demographic variables age, type of family, educational status etc., the p value of association test with pre skill was more than 0.05. That means, the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas was not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the pretest skill.

SUMMARY, FINDINGS, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

INTRODUCTION

This chapter presents brief summary of the study and its significant findings. It also includes the implications and recommendations for further study.

The aim of study was, a study to assess the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas.

The design used for study was pre-experimental one group pre-test post-test research design. The study was conducted at selected rural areas. The Sample size of study was 120 caregivers of under five children at selected rural areas.

The reliability of the knowledge tool was determined test retest Method of Reliability, the tool was administered to 12 samples. Reliability of the knowledge tool was found to be 0.86.

The reliability of the skill tool was determined test retest Method of Reliability, the tool was administered to 12 samples. Reliability of the knowledge tool was found to be 0.95. The pilot study was conducted, to assess the feasibility of the study and to decide the statistical analysis and practicability of research. It was found feasible.

STATEMENT OF THE PROBLEM

“Study to assess the effectiveness of hands on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area.”

OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVES

To evaluate the effectiveness of hands-on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas.

OTHER OBJECTIVES

To assess the existing knowledge regarding first aid for choking in children among the caregivers of under five children.

To find out the association between the pre-test knowledge score regarding first aid of choking in children with their selected demographic variables.

HYPOTHESIS

H1: There will be significant difference between pre-test and posttest knowledge score regarding first aid for choking among caregivers of under five children.

H2: There will be significant association between pre-test knowledge scores of caregiversof under five children regarding first aid for choking with their selected demographic variables.

MAJOR FINDINGS OF THE STUDY

The analysis of demographic data of study samples gave an idea about general characteristics of caregivers of under five children at selected rural areas.

SECTION –I -

DEMOGRAPHIC VARIABLES

According to age of caregivers of under five children at selected rural areas, 54.17% of them were from age group 19-24 years, 45.83% from age group 25-30 years, no one from age group 31-37 years, no one from age group 39-44 years and no one caregivers were 46 and above years of age.

In the study, according to type of family of caregivers of under five children at selected rural areas, 28.33% of them were from nuclear families, 36.67% from joint families and 35% caregivers were from extended type of families.

According to family income of caregivers of under five children at selected rural areas, 20% of them had income less than Rs 5000, 17.50% of them had income in Rs 5001 - Rs 15000, 37.50% answered as Rs 15001 -Rs 25000 and 25% of caregivers had income above Rs 25001.

In the study, according to educational status of caregivers of under five children at selected rural areas, 15.83% of them educated up to primary level, 5.83% educated up to secondary level, 62.50% up to higher secondary level, 15.83% of them were graduates and no one caregivers were postgraduates.

According to occupation of caregivers of under five children at selected rural areas, 28.33% of them were homemakers, 45.83% of them were employed, 22.50% answered as self-employed and 3.33% of them were unemployed.

According to previous knowledge about first aid for choking among caregivers of under five children, 38.33% of them answered from family and friends, 50.83% answered as healthcare provider, 7.50% answered as books or magazines, 3.33% from online resources / social media, no one from other sources.

SECTION II

GENERAL ASSESSMENTS OF KNOWLEDGE- PRE & POST TEST

For assessment purpose the total score of knowledge was divided in to three groups like poor (0-10 score), average (11-20 score) and good (21-30 score).

Pre Test:

At the time of pretest, assessment of the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas, 2.50% of them had poor, 95.83% average knowledge and 1.67% of them had good knowledge.

Average knowledge score at the time of pretest was 14.72 with standard deviation of 2.76. The minimum score of knowledge was 10 with maximum score of 22.

Post Test:

At the time of posttest, assessment of the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas, no one of them had poor, 8.33% average knowledge and 91.67% of them had good knowledge.

Average knowledge score at the time of pretest was 23.57 with standard deviation of 2.15. The minimum score of knowledge was 18 with maximum score of 28.

GENERAL ASSESSMENTS OF HANDS-ON SKILL TRAINING PROGRAMME PRE & POST TEST

For assessment purpose the total score of hands-on skill training programme was divided in to three groups like poor skills (0-10 score), average skills (11-20 score) and good skills (21-30 score).

Pre Test:

At the time of pretest, assessment of the hands-on skill training programme regarding first aid for choking in children among caregivers of under five children at selected rural areas, 5.83% of them had poor, 85% average skill and 9.17% of them had good skill.

Average skill score at the time of pretest was 15.55 with standard deviation of 2.92. The minimum score of skill was 10 with maximum score of 24.

Post Test:

At the time of posttest, assessment of the hands-on skill training programme regarding first aid for choking in children among caregivers of under five children at selected rural areas, no one of them had poor, 0.83% average skill and 99.17% of them had good skill.

Average skill score at the time of posttest was 24.86 with standard deviation of 1.32. The minimum score of skill was 20 with maximum score of 27.

SECTION III

COMPARISON OF THE PRE AND POSTTEST KNOWLEDGE

The comparisons of pretest and posttest means of knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas was done by paired t test. The pretest average score was 14.72 with standard deviation of 2.76. The posttest average score was 23.57 with standard deviation of 2.15.

The test statistics value of paired t test was 31.03 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest knowledge.

Shows that, hands on skill training programme on knowledge regarding first aid for choking in children among caregivers of under five children was effective.

COMPARISON OF THE PRE AND POSTTEST HANDS-ON SKILL TRAINING PROGRAMME

The comparisons of pretest and posttest means of skill regarding first aid for choking in children among caregivers of under five children at selected rural area was done by paired t test. The pretest average score was 15.55 with standard deviation of 2.92. The posttest average score was 24.86 with standard deviation of 1.32.

The test statistics value of paired t test was 32.20 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest skill.

Shows that, hands on skill training programme regarding first aid for choking in children among caregivers of under five children was effective.

SECTION-IV

ASSOCIATION OF KNOWLEDGE SCORE IN RELATION TO DEMOGRAPHIC VARIABLES – PRE TEST

The chi square test was used to see association between knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas with selected demographic variables.

The test was conducted at 5% level of significance.

Significant Association:

For the demographic variables type of family and family income, the p value of association test with pre knowledge was less than 0.05. That means, the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas was associated with these demographic variables.

Concludes that, there was significant association of these demographic variables with the pretest knowledge.

No Significant Association:

For the demographic variables age, educational status, occupation etc., the p value of association test with pre knowledge was more than 0.05. That means, the knowledge regarding first aid for choking in children among caregivers of under five children at selected rural areas was not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the pretest knowledge.

ASSOCIATION OF SKILL SCORE IN RELATION TO DEMOGRAPHIC VARIABLES – PRE TEST

The chi square test was used to see association between skills regarding first aid for choking in children among caregivers of under five children at selected rural areas with selected demographic variables.

The test was conducted at 5% level of significance.

Significant Association:

For the demographic variables family income and previous knowledge, the p value of association test with pre skill was less than 0.05. That means, the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas was associated with these demographic variables.

Concludes that, there was significant association of these demographic variables with the pretest skill.

No Significant Association:

For the demographic variables age, type of family, educational status etc., the p value of association test with pre skill was more than 0.05. That means, the skill regarding first aid for choking in children among caregivers of under five children at selected rural areas was not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the pretest skill.

DISCUSSION

The discussion in the most interesting part of the dissertation. The finding of the study was discussed in the light of previous studies. The discussion section is developed to a thoughtful and insightful analysis of the finding, leading to a discussion of their clinical and theoretical utility. The findings of the study were discussed with reference to the objective stated as

below. The present study was undertaken as, Study to assess the effectiveness of hands-on skill training programme on knowledge regarding first aid for chocking in children among caregivers of under five children at selected rural area.The study aimed to assess the effectiveness of a hands-on skill training programme on knowledge and skill regarding first aid for choking in children among caregivers of under-five children in rural areas. The results showed a **significant improvement in both knowledge and skill scores after the intervention**.

The **mean knowledge score** increased from 14.72 in the pre-test to 23.57 in the post-test, indicating a strong impact of the educational intervention. Similarly, the **mean skill score** improved from 15.55 to 24.86 post-training. The **paired t-test values** for knowledge ($t = 31.03$) and skill ($t = 32.20$) were highly significant ($p < 0.05$), confirming the effectiveness of the intervention.

These findings are consistent with the study by **Jaypurkar et al. (2024)**, 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. Who also found significant improvement in caregivers' knowledge after training. 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. Conclusion of the study findings conclude that hands on skill training program is effective to improve knowledge regarding choking.

LIMITATIONS

Small sample size may not represent all rural caregivers.

Skills were tested in simulated settings, not real emergencies.

Short-term evaluation only; long-term retention not measured.

Limited resources like manikins may have affected practice quality

CONCLUSION

After the detailed analysis, this study leads to the following conclusion.

This study provides valuable insights into the demographic characteristics, knowledge regarding first aid for choking in children among caregivers of under five children at selected rural area.

The pretest average score was 14.72 with standard deviation of 2.76. The posttest average score was 23.57 with standard deviation of 2.15. The test statistics value of paired t test was 31.03 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest knowledge.

The pretest average score was 15.55 with standard deviation of 2.92. The posttest average score was 24.86 with standard deviation of 1.32. The test statistics value of paired t test was 32.20 with p value 0.00. The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest skill.

IMPLICATIONS OF THE STUDY

Nursing practice

The study emphasizes the importance of caregiver education in managing choking emergencies, a common and preventable cause of child death.

Nurses, especially community health nurses and pediatric nurses, can incorporate hands-on skill training into routine health education during home visits, immunization clinics, and well-baby clinics.

The training program can become part of health promotion and preventive care in rural areas.

Nurses can act as first responders and trainers to empower families in emergency preparedness.

Nursing administration

This study adds to the growing body of evidence on the effectiveness of hands-on first aid training in improving the knowledge and skills of caregivers.

It will help establish best practices for delivering first aid training to non-medical individuals, particularly in rural settings.

Nursing administrators can ensure that adequate resources—both human and financial—are allocated to carry out the training programs.

This includes hiring qualified trainers, securing materials for hands-on training, and ensuring that training sessions are accessible to caregivers in rural areas.

The study may encourage nursing administrators to work more closely with community leaders, local healthcare providers, and non-governmental organizations (NGOs) to develop and implement training programs.

Nursing education

Findings suggest that practical, skill-based training is more effective than theoretical teaching alone.

Nursing curriculum should emphasize simulation-based learning and community-based teaching modules on emergency first aid.

Student nurses can be trained to conduct choking management sessions for caregivers as part of their community posting.

Promotes integration of skill-based workshops and low-cost manikin-based training in nursing education.

Nursing research

This study provides a base for further research on:

Long-term retention of skills after training.

Effectiveness of digital or video-based training for caregivers.

Comparative studies between rural and urban caregivers.

Promotes the need for evidence-based practice in community first aid training.

Can be replicated with larger samples or different settings to generalize the findings.

RECOMMENDATIONS

Similar studies should be conducted in larger, more diverse populations across different districts or states for better generalization.

Longitudinal studies should be undertaken to assess the long-term retention of knowledge and skills post-training.

Comparative studies can be conducted to evaluate the effectiveness of hands-on training versus digital/online training methods.

Future research may include fathers, grandparents, school teachers, and child care providers to assess overall community preparedness.

Investigate the real-life application of first aid by caregivers during actual choking incidents and identify any barriers faced.

REFERENCES

1. Kumar, A., Varshney, S., Tyagi, A. K., Patro, S. K., Malhotra, M., & Bhardwaj, A. (2019). Choking-A Public Health Problem-Are We Prepared. Indian Journal of Community Health, 31(2), 284-286

2. Lu, Q. F., Ma, Q., Rithwan, S. M. S., Ng, H. C., Lee, S. L., Lee, K. M., ... & Xie, H. (2017). Risk factors and nursing strategies to manage choking in adults with mental illness: a systematic review protocol. JBI Evidence Synthesis, 15(8), 1998-2003

3. Rimell FL, Thome A, Stool S, Reilly JS, Rider G, Stool D, Wilson CL. Characteristics of objects that cause choking in children. JAMA. 1995 Dec 13;274(22):1763-6.

4. Committee on Injury, Violence, and Poison Prevention. Policy statement—Prevention of choking among children. Pediatrics. 2010;125(3):601–607. doi:10.1542/peds.2009-2862

5. Linto M, Maria T. A study to assess the effectiveness of self- module on knowledge regarding selected first aid measures among primary school teachers in Ernakulam district. Int J Medic Heal Profes Res. 2015;2(1):17-3

6. Korycka K, Mormul A, Korab M, Smalira J. Choking in children: causes, prevention and intervention strategies. Wiad Lek. 2024 Sep;77(9):1802–1807. doi:10.36740/WLek202409123

7. Kernell, J. W., DePaola, R. V., Maglione, A. M., Ahern, L. N., Penney, N. G., & Addiss, D. G. (2018). Risk of adverse swallowing events and choking during deworming for preschool-aged children. PLoS Neglected Tropical Diseases, 12(6), e0006578.

8. BHATIA V., PURI S., MANGAT C. & KAUR A. (2010): An intervention study to strengthen first aid care in schools of Chandigarh, India. The Internet Journal of Family Practice, 8 (1)

9. IPA, The American Association for the Child's Right to Play. IPA Declaration Of a child, 2007.

10. Mohan D, Anderson R. Injury prevention and control: International course on injury prevention and control. TRIPP, New Delhi, 2000.

11. D'souza. A study to evaluate the effectiveness of planned teaching programme on knowledge and attitude about complementary feeding among mothers and infants in selected primary health centers of

udupi district, KarnataUnpublished Masters of Nursing thesis, Manipal university: 2006

12. Ali maalim issack,Assessment of knowledge, attitude and practice on first aid management of choking and associated factors among kindergarten teachers in Addis Ababa governmental schools, Addis Ababa, Ethiopia. A cross-sectional institution-based study 2021 Jul 30;16(7):e0255331. doi: 10.1371/journal.pone.0255331. eCollection 2021.

13. Shadia Abd Elmoniem Syan1; Nora Abd- Elhamid Zaki2; Amira Hassan Abd-Alfatah Ahmed email orcid 3; Fatma Elzahraa Kamal Alsayed Ali4 , Effect of educational Program about first aid and prevention of choking for mothers of Preschool age children ,Assiut Scientific Nursing Journal http://asnj.journals.ekb.eg

14. UNICEF. Egypt. (2016): Young Child Survival And Development: Child and Maternal Health. Available http://www.unicef.org/egypt/Fact_Sheet_YCSD_Child_Maternal_Health.pdf [Accessed 26 March 2016]

15. Stanford medicine chlidrens health ,foregin body in throat , was first indexed by Google in April 2013

16. Abdelmalik, M., Mohammead, M., Mohammed, A., Abdalla, A., Saeed, A., Sambu, B. and Beraima, M. (2022). Effects of Education Programs on School Students' Knowledge, Attitude, and Practice Regarding First Aid for a Choking.

17. Nabiha gul hassan knowledge of caregivers for the prevention of injuries among Children in day-care centres, in putrajaya and selangor, 2016 international journal for studies on children, women, elderly and disabled, vol. 1, (january) issn 0128- 309x

18. Habeeb, K. A., &Alarfaj, G. (2020): Saudi parents' awareness regarding burn, choking, and drowning first aid in children. Journal of family medicine and primary care, 9(3), 1370

19. Hassan N G, Shahar H K & Abdul Rahman H. (2017): Knowledge of Caregivers for The Prevention of Injuries Among Children in day –Care Centers, in Putrajaya and Selangor. International Journal for Studies on Children, Women, Elderly And Disabled, Vol. 1, (January)

20. S Nazma Ahmed, MS Jayashree Kakoti a study to assess the effectiveness of structured teaching program on knowlege of first aid for choking among the mothers of under five children in selected areas volume - 13 | Issue - 12 | December - 2023 | . PRINT ISSN No 2249 - 555X | DOI : 10.36106/ijar

21. Sarabi N, Nosratabadi M. Effectiveness of Video Education on Mothers' Knowledge of Hazard Factors and First Aid Administration in Choking Incidents. J Compr Ped. 2022;13(2):e121420.

22. Imad Tawfiq Asmar,Omar H. Almahmoud, Mutaz Dreidi, Fatima Jebara, Nora Jaber, Ahmad Kahala , Noor Hamdan Knowledge and practices of choking first aid skills among Palestinian mothers of children under five ,journal of neonatal nursing Volume 29, Issue 5, October 2023, Pages 728-734

23. Nesrin Abu Baker.,Huda Gharaibeh,Haya M. Al-Zoubi,Christine Savage Mothers' knowledge and practices of managing minor illnesses of children under five years September 2012Journal of Research in Nursing 18(7):651-666 18(7):651-666

24. Heena Kumari1, KH. Nitakumari2 a study to assess effectiveness of hand on skill training programe on knowledge and skill on first aid for choking among the mothers of children international journal of nursing education and research Articles In Volume - 11, Issue –3

25. Yadav PK, Samota AK, Yadav R, Yadav BL, Lal H. A study to assess the effectiveness of hands-on skill training programme on knowledge of first aid for choking among the mothers of under five children in selected areas at Jaipur. Int J Health Sci Res. 2021;11(3):157–163.

26. Anggun - Sulistiyani, ,Meida Laely Ramdani the influence of health education about handling choking on children through booklet media on the knowledge level of posyandu cadres in karangsari village.

27. Sahar Mahmoud. S. El Awady, Taghreed Talaat, Sabah. Nazeh. Elderiny, First Aid Training Program for Children Caregivers in Nursery, International Journal of Novel Research in Healthcare and Nursing Vol. 6, Issue 1, pp: (907-920), Month: January - April 2019

28. Km arti,Rina kumari, Effectiveness of an instructional module regarding first-aid of pediatric emergencies on knowledge among mothers of 1-6 years children December 2020International Journal of Contemporary Pediatrics 8(1):70 DOI:10.18203/2349-3291.ijcp20205508

29. Simpson. S1, Yadav. R2 ,A Study to assess The Effectiveness of Planned Teaching Programme on Knowledge regarding First Aid Management of choking among Primary school teacher at selected school at Dehradun international journal of advances in nursing Year:2019, volume:7 issue:3.

30. Nair, Vijayasree. (2023). Effectiveness of Structured Teaching Programme on knowledge regarding management of home accidents among mothers of under-five children. International Journal of Advances in Nursing Management. 255-259. 10.52711/2454-2652.2023.00057.

31. Ala'a A.S AI – Johani Knowledge and practice of first aid among parents attending Primary Health Care Centers in Madinah City, Saudi Arabia, A Cross Sectional Study 2018 Mar-Apr;7(2):380-388. doi: 10.4103/jfmpc.jfmpc_64_18

32. Pandey R, Chauhan R, Dobhal S, Dabral S, Nathani S, Negi S, et al. First aid knowledge among health assigned teachers of primary schools. Int J Res Med Sci. 2017;5(4):1522-7

33. Thirunavukkarasu A, Alanazi AR, Al-Rasheedi AN, Alruwaili DK, Abdel-Salam DM, Alriwely NS, Alruwaili AFJ, Alanazi AAZ, Alruwaili SFO and Alruwaili ARR (2024) Assessment of knowledge, attitude, and practice toward first aid management of choking hazards among Eastern Province Saudi adults: an observational study. Front. Public Health. 12:1376033. doi: 10.3389/fpubh.2024.1376033

34. Ali maalim issack,Assessment of knowledge, attitude and practice on first aid management of choking and associated factors among kindergarten teachers in Addis Ababa governmental schools, Addis Ababa, Ethiopia. A cross-sectional institution-based study 2021 Jul 30;16(7):e0255331. doi: 10.1371/journal.pone.0255331. eCollection 2021

35. Salih AM, Alfaki M, Alam-Elhuda DM. Airway foreign bodies: A critical review for a common pediatric emergency. World J Emerg Med. 2016;7(1):5-12. doi: 10.5847/wjem.j.1920-8642.2016.01.001. PMID: 27006731; PMCID: PMC4786499

36. Yadav, S. P., Singh, J., Aggarwal, N., & Goel, A. (2007). Airway foreign bodies in children: experience of 132 cases. Singapore Med J, 48(9), 850-853.

37. Natalie M Hayes, Aaron Chidekel Pediatricchoking Del Med J 2004 Sep;76(9):335

38. Polit D. & Hungler B. P. Nursing research principles and methods Philadelphia: Lipincott company, page no: 360 – 362.

39. Suresh k. Sharma, Nursing Research and statistics, 3rd edition, Haryana: Elsevier Publisher 2014. Page no: 164, 145 – 175, 43, 251 – 252.

40. Nisha Clement, Nursing Research and Statistics, 2nd edition, New Delhi: EMMESS Publishers 2011, page no: 340.

41. B. T. Basavanthappa, Nursing Research, Jyapee publication, Page no : 230 – 234, 67, 98 – 99