A Study to Assess the Effectiveness of Structure Teaching Program on Knowledge Regarding Accident Prevention among the Mother of Under Five Children in Amethia Salimpur Hardoi Road Lucknow

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ABSTRACT

Accident can happen anywhere in and around the home, but common places include the during room, kitchen, bathroom and the stairs. Accidents in the kitchen and on the stairs are often the most serious. There are potential hazards in every home, such as hot water, household chemical, fireplaces and sharp. **Objective** -1-To assess the knowledge regarding accident prevention among the mothers of under five children. 2-.To evaluate the effectiveness of structure teaching programme on knowledge regarding accident prevention. 3.To associate the knowledge of pre test score with selected demographic variable. **Method**-Quasi -experimental research design with one group pre-test and post -test research design, purposive sampling technique was used on 52 mother of under five children belonging were including the study, each mothers were given structure teaching programmer on knowledge regarding accident prevention. **Result**- Pre-test knowledge among mother of under five children, the 21.2% mother's were having inadequate knowledge, 78.8% mothers were having moderate knowledge, 0% mothers were having Adequate knowledge regarding accident prevention. According to post-test level of knowledge, the 0% mothers were having inadequate knowledge, 1.9% mothers were having moderate knowledge, 98.1% mothers were having Adequate knowledge regarding Accident prevention. There was no significant association different in knowledge level of mothers and selected demographic variable. **Conclusion**- In pre-test out of 52 mother of under five children, 21.2% had inadequate knowledge, 78.8% had moderate knowledge, 0% had Adequate knowledge. In post-test 0% had Inadequate knowledge, 1.9% had Moderate knowledge, 98.1% had Adequate knowledge. The 't' value 37.39 was compared with tabulated table value at the level of $P<0.05$ was significant. So it has been concluded that the structure teaching programme on accident prevention among the mother of under five children was effective.

BACKGROUND / SIGNIFICANT OF THE STUDY

According to the WHO every year about 830,000 children die from home accident world wide. This corresponds to 2,000 child death in a day. In addition, majority of children (millions) have been referred to hospital due to home accident-related to injuries, eventually resulting in permanent disabilities. Equally, in Europe and worldwide home injuries are classified as the fourth leading cause of deaths. Through the actual number of accident and associated harms cannot be established, home accident are greater than traffic and occupational accident .This is because there are insufficient record and data from hospital and this doesn't present all relevant figures. The canter for disease control(2011) observed that home accident make up the third leading cause of emergency department visits in the USA and in the United Kingdom it is noted that 40% of all accident occur at home whiles2,700,000 people get treatment relating to home accident. Similarly,7,000 death are recorded annually due to home accident.

The national safe kids campaign(2012), recorded that in the united state 40% of death and 50% of non- fatal unintended accidents occur in and around the home.

In India is accounts for an estimated of 12,75000 children are grievously injured. A total of 22,000 death was reported due to drowning. In Karnataka at least 30,000 children's are dying annually due to accidents, drowning and poisoning. In developing countries paediatric emergency are show to be as numerous as in developed countries.

NEED OF THE STUDY

A child's world centres around the home ,school and the community .Every child has right to grow up in a health environment ,developmentally ,gross motor skill enables the pre- school not only to move father more quickly by walking ,running ,climbing, and riding a tricycle but also to pull object around and to explore area like pools and ponds without the immediate supervision of an adult .Accident are undoubtedly among the chief cause of morbidity and mortality in childhood.

In 2004, a study was conducted on mother's home safety practices for prevention six common types of childhood injuries. To identify determinants of mothers home safety injuries to children (burn, poisoning, drowning, cut chocking and falls).The factors that motivated mothers to engage in precautionary measure at home varied depending on the type of injury.

According to 2013 worldwide survey have shown about the paediatric emergency varies from country to country. The 5 million children died from injuries with a global mortality rate of 83.7 per 1,00,000 per annum. A total of 2,83,000 death was reported due to falls. In the year 2004 an estimated 3,76,000 children drowned approximately 97% of drowning deaths occurred in low and middle income countries.

According to 2012in Indian is accounts for an estimated of 12,75,000 children are grievously injured. A total of 22,000 deaths was reported due to drowning. In Karnataka at least 30,000 children's are dying annually due to accident, drowning and poisoning. In developing countries paediatric emergency are shown to be as numerous as in developed countries.

According to 2002 UNICEF report say that globally average of under five mortality in 2002 was 82 per 1000 live births in the developing world it was 90 per 1000 live births. Childhood accident are the leading cause of childhood injuries such as drowning, falls, burn, foreign, object, poisoning. Because under five children spend much time at home than any other place, they may be exposed to numerous hazards, which usually take place in kitchens, living room and bathrooms.

PROBLEM STATEMENT

A study to assess the effectiveness of structure teaching programme on knowledge regarding accident prevention among the mothers of under five children in selected rural area Lucknow.

OBJECTIVE

➢ To assess the knowledge regarding accident prevention among the mothers of under five children.

➢ To evaluate the effectiveness of structure teaching programme on knowledge regarding accident prevention.

➢ To associate the knowledge of pre test score with selected demographic variable.

OPERATIONAL DEFINITION

➢ **Assess:** The term assess refers to the wide variety of methods or tools that educators use to evaluate measure and document the academic readiness, learning progress skill acquisition or educational need of student.

➢ In my study, it refer to the ability to estimate the knowledge of under five mother on accident prevention.

➢ **Structure Teaching Programme:** Structure teaching programme is a systematically develop instructional program using instructional aid.

➢ In this study it refers to a systematically organized teaching plan on accident prevention.

➢ **Effectiveness:** The capability of producing a desired result or the ability to produce desired output when something is deemed effective it, means it has an intended or expected outcome.

➢ In this study it is to determine the extent to which the information in structure teaching programme has achieved the desire out come as measure by gain in knowledge

➢ **Knowledge:** Knowledge is the information or the awareness gained through the experience or education.

➢ In this study it refers to the response of mother of under five children to the items in structured questionnaire about the accident prevention.

➢ **Mothers;** A mother is the female parent of a child. Mother are women who inhabit or Perform the role of bearing some relation to their children, who may or may not be their biological offspring.

➢ In this study refer to women mothers who have children between 0 -5 year of age.

➢ **Under five children:** children who are less than five years old, especially those who are not in full –time education.

➢ In this study refer to the children between the age group of 0-5 year.

➢ **Accident prevention:** Accident prevention refers to the plans, preparation and action taken to avoid or stop an accident before it happens.

➢ In this study refer to the various means by which the under five children are protected from any uneventful situation like aspiration, fall, poisoning, drowning etc.

HYPOTHESIS:
➢ H1:- There is significant increase in the post test knowledge score regarding the accident prevention

➢ H0:- There is no significant difference between pre-test and post-test knowledge score regarding accident prevention

➢ H2:- There is a significant association between the pre test knowledge score with selected demographic variable.

➢ H0:- There is no significant association between the pre knowledge score with selected demographic variables.

Conceptual Framework
The conceptual framework for this study was derived from "J.W.Kenny's open system model (1999) " interrelated parts in which parts have a function and system as a whole has its own function :- all living system are open system in which there is a continuous exchange of matter, energy and information provides input for the system. The system transforms the input in the process know as output. When output is returned into the system as input the process is known as feedback. All living systems are open in that there is continually exchange of matter, energy and information with environmental from which the system receives input and gives output in the from of matter energy and information.

REVIEW OF RELATED LITERATURE
1. **Mohammed seid Ali et all. 2021.** Conducted a cross- sectional study. Determinants of knowledge attitude and practice Towards first aid, among kindergarten and elementary 346 school teacher in Gondar city, North-west Ethiopia. Quantitative research approach used. A simple random sampling technique was used in data collection. The tool consist of self administered questionnaire for data collection. The finding of the study that 41.1% of the

teacher had good knowledge.64.8% of teacher had a favourable attitude towards first aid. The majority (85.8%) of the teacher who faced a child in need of first aid. The conclude of the study. Less then half and nearly two- thirds of the teachers had good knowledge and a favourable attitude towards first aid. The majority of the teachers who encouraged a child in need of first aid gave first aid.

2. **MS. B. Byula Bavana 2021**. Conducted a pre-experimental one group pre-test & post test. Effectiveness of structured teaching programme on road safety measure among 50 primary school children in selected primary school. Cluster random sampling technique, each school was considered as a cluster and children were selected by simple random sampling technique. Quantitative research approach was used. The tool consist of structured questionnaire. The finding of the study revealed that over all outcome of the study out of 50 student 54% (27) had inadequate knowledge and 46%(23) has adequate knowledge in pre –test 0%. (0) had inadequate knowledge and 100%(50) had adequate knowledge in post test.

3. **Khalid o Al shammari. 2021**. conducted a survey study. Assess the knowledge, attitude and practice about first aid among 604 male school teacher in hail city Saudi Arabia. Cross- sectional research design was used. Random cluster sampling technique used in study qualitative approach used. The tool consist of online structured questionnaire. The finding of the study revealed that over all of the study, the teacher mean age 39+ 7.8 year, most of the teacher (90.9%) knew about first aids more than one – half of teachers (58.28) had not taken first aid training, and the majority of participants (87.9%) need to learn first aid. Conclude of the study that the school teacher in hail city had good knowledge and attitude about the first aid.

4. **Aditi kumara et al 2021**.Conducted a Quasi – experimental study to assess the effectiveness of structure teaching programme on child safety measure among 60 mothers of under five children at selected village Annian District Fateghar sahib, Punjab. Purposive sampling technique used. Quantitive research approach was used. The tool consist of was self structured questionnaire used for data collection. The finding of the study revel that over all out come of the study mean knowledge, Pre-test score 9.42 found to be inadequate, in post test knowledge score was 23.53 found to be improvement in the knowledge.

METHODOLOGY

Approach

the study **quantitative approach** is considered being most appropriate for the study.

RESEARCH DESIGN

The research design selected for this study is Quasi experimental with one group pre test- post test design.

SETTING OF THE STUDY

The present study was conducted in selected rural area (**Anganwadi centre "Amethia Salempur"**) Kakori, Lucknow.

POPULATION

Population for the present study consisted of **Mother of under five children** in selected rural area(Amethia, Salempur) Kakori, Lucknow.

Target population:

The target population of present study was Mother of under five children in Amethia Salempur, Kakori. Lucknow.

Accessible population

Mother of under five children in Amethia salempur, Kakori Lucknow and who fulfil the inclusion criteria.

SAMPLE:

In this study the sample were the Mother of under five children in selected rural area (Amethia, Salempur) Lucknow.

THE SAMPLING TECHNIQUE

In the present study the sample were selected by using **purposive sampling technique.**

Sample size:

According to Morgan statistical calculation the sample size is **52**

Research Variables

Independent variable:-- The effectiveness of structured teaching programme on Accident prevention.

Dependent variable:- The dependent variable is the knowledge regarding accident prevention.

Demographic Variable:- Age in the year, Education, Family income, Types of family, Occupational status, No of children.

Inclusive and Exclusive Criteria

Inclusion criteria: The present study include:
➢ Mothers who had children between the ages of 0 -5 year
➢ Those who are present at the time of study

Exclusion criteria:

➢ Mother who are not willing to participate in study

➢ Mother of under five children with mental disorder

DATA COLLECTION TOOLS

A structured questionnaire was prepared to assess the level of knowledge regarding accident prevention among mother under five children, found to be most appropriate method of data collection keeping the research question in mind.

RESEARCH TOOLS:

It included structured questionnaire to assess the knowledge regarding accident prevention among mother under five children.

It consisted of

1. Structured questionnaire

➢ Demographic variable
➢ Questionnaire to assess the knowledge regarding accident prevention.

Demographic variables:

It include age in the year, education, Family income status, occupation status, types of family, number of children.

Structure questionnaire on knowledge regarding accident prevention

This section consists of self-instruct questionnaires to assess effectiveness of structured teaching programme on knowledge regarding Accident prevention. It consists of 25 multiple-choice question sand there will be only one correct answer. The score for correct response to each item was one and incorrect response was zero, thus for 25 items maximum obtain able score was 25 and minimum was zero.

Validity of Tool

Validity: Content and tool validity was obtained from 5 experts from the field of medical and nursing department.

Reliability of Tool

The reliability of tool was checked by split-half method and it was found r =0.7, which means tool was Reliable. Reliability and practicability of the tool was tested through pilot study and used for main study.

ETHICAL CONSIDERATION:

Keeping in mind the legal rights of the subjects, only those students will be included who are willing to participate. Verbal consent will be obtained from the subjects. Anonymity of the study subject sand confidentiality of the information was maintained. Registration No.ECR/717/Inst/up/2015 RR-21).The main study was conducted after the approval from the following-
➢ The Principal of ERA College of Nursing
➢ The Ethical Committee of ERA University
➢ The Research Committee of ERA University

RESEARCH ANALYSIS AND INTERPREATION
Score Interpretation

Knowledge level	Score	Percentage %
Adequate Knowledge	21-25	68-100%
Moderate Knowledge	11-20	37-67%
Inadequate knowledge	0-10	36%

Maximum score=25   *Minimum score= 0*

RESULT
PRESENTATION OF DATA
The data were entered in the master data sheets followed by the analysis and interpretation using descriptive and inferential statistics according to the objective of the study.

The data was organized and presented in the following section:

Section-I
Description of sample characteristics
Table 1: Frequency and percentage distribution of the samples according to the demographic variable.

Table 2: Frequency and percentage distribution of sample according to their pre and post test score.

Section II
Effectiveness of structured teaching programme on accident prevention.

Section III
Association between the knowledge and demographic variable.

Section-1: FINDING ON DEMOGRAPHIC CHARACTERISTICS OF THE SUBJECTS:

This section section deal with the frequency and percentage distribution of sample according to their demographic variables.

Frequency and percentage distribution of mother of under five children in Amethia salempur Lucknow, according to their demographic variables.

n=52

S. No	Demographic Variables	Category	Frequency	Percentage
1	Age in year	18- 24 years	7	13.5
		25 -30 years	15	28.8
		31 – 35 years	24	46.2
		≤ 35 years	6	11.5
2	Education	illiterate	5	9.6
		Primary & high school	17	32.7
		Higher secondary school	23	44.2
		Graduate	7	13.5
3	Monthly income of the family	Below 5000	13	25.5
		5000-10000	21	40.41
		10000	18	34.6
4	Types of family	Nuclear	38	73.1
		Joint	14	26.9
5	Occupation status	House wife	34	65.4
		Self employed	13	25.0%
		Govt. employee	5	9.6
		Private employee	0	0.0%
6	No of children in family	One	11	21.2
		Two	25	48.1
		Three	13	25.0
		More than three	3	5.8

PRE-TEST KNOWLEDGE

To assess the knowledge regarding accident prevention among the mothers of under five children.

Table. 4.2 Frequency and percentage distribution of sample according to their pre and post test score.

CRITERIA MEASURE OF PRETEST KNOWLEDGE SCORE	
SCORE LEVEL(N= 52)	PRE TEST f(%)
INADEQUATE KNOWLEDGE.(0-10)	11(21.2%)
MODERATE KNOWLEDGE.(11-20)	41(78.8%)
ADEQUATE KNOWLEDGE.(21-25)	0(0%)

Maximum score= 25　　Minimum sore=0

Table N0-.2 The pre-test knowledge score frequency and percentage distribution of knowledge regarding Accident prevention. The 11(21.2%) Mothers of under five children having Inadequate knowledge, 41 (78.8%) were Moderated knowledge. 0(0%) were Adequate knowledge

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
PRETEST KNOWLEDGE	12.27	2.188	12	19	8	11	49.10

Maximum score=25　　Minimum score= 0

Post Score:-

Table No:3. Assessment of post test level of knowledge regarding accident prevention among the Mother of under five children.

CRITERIA MEASURE OF POST TEST KNOWLEDGE SCORE	
SCORE LEVEL(N= 52)	POST TEST f(%)
INADEQUATE KNOWLEDGE.(0-10)	0(0%)
MODERATE KNOWLEDGE.(11-20)	1(1.9%)
ADEQUATE KNOWLEDGE.(21-25)	51(98.1%)

Maximum Score=25　Minimum Score=0

Table N0-4. The post-test knowledge score frequency and percentage distribution of knowledge regarding Accident prevention. The 0(0%) Mothers of under five children having Inadequate knowledge,1(1.9%)were Moderated knowledge. 51(98.1%) were Adequate knowledge.

Table No: 5. Descriptive Statistics table

N= 52

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
POSTTEST KNOWLEDGE	24.63	1.030	25	25	20	5	98.50

Maximum=25　Minimum=0

OBJECTIVE-2

To evaluate the effectiveness of structure teaching programme on knowledge regarding accident prevention among the mother of under five children.

Table.6. Frequency and percentage distribution of samples according to their level of knowledge.

SCORE LEVEL(N= 52)	PRE TEST F (%)		POST TEST F (%)	
INADEQUATE KNOWLEDGE.(0-10)	11	(21.2%)	0	(0%)
MODERATE KNOWLEDGE.(11-20)	41	(78.8%)	1	(1.9%)
ADEQUATE KNOWLEDGE.(21-25)	0	(0%)	51	(98.1%)

Maximum score=25　　Minimum score =0

Mean& mean percentage % distribution comparison of pre-test and post-test knowledge score.

n=52

Paired T Test	Mean±S.D.	Mean%	Range	Mean Diff.	Paired T Test	P value	Table Value at 0.05
PRETEST KNOWLEDGE	12.27±2.188	49.10	8-19	12.360	37.39 *Sig	<0.001	2.01

OBJECTIVE-3

To associate the knowledge of pre test score with selected demographic variable.

Table No 8. This section deals with the findings related to the association between score and selected demographic variables. The chi-square test was used to determine the association between the score levels and selected demographic variables.

Demographic Variables	Category	Adequate Knowledge	Moderate Knowledge	Inadequate Knowledge	Chi Test	P Value	df	Table Value	Result
ASSOCIATION OF PRETEST KNOWLEDGE SCORES OF SELECTED SOCIO-DEMOGRAPHIC VARIABLES.									
Age in year	18- 24 years	0	5	2	2.865	0.413	3	7.815	Not Significant
	25 -30 years	0	14	1					
	31 – 35 years	0	18	6					
	≤ 35 years	0	4	2					
Education	illiterate	0	4	1	2.582	0.461	3	7.815	Not Significant
	Primary & high school	0	12	5					
	Higher secondary school	0	18	5					
	Graduate	0	7	0					
Monthly income of the family	Below 5000	0	10	3	0.335	0.846	2	5.991	Not Significant
	5000 -10000	0	16	5					
	10000	0	15	3					
Types of family	Nuclear	0	31	7	0.632	0.427	1	3.841	Not Significant
	Joint	0	10	4					
Occupation status	House wife	0	26	8	0.06	0.828	2	5.991	Not Significant
	Self employed	0	11	2					
	Govt. employee	0	4	1					
	Private employee	0	0	0					
No of children	One	0	8	3	1.101	0.777	3	7.815	Not Significant
	Two	0	20	5					
	Three	0	10	3					
	More than three	0	3	0					

Nursing Implications

The finding of the study have implication in different branches of nursing that is nursing practice, nursing education, nursing administration and nursing research, by assessing a level of mother knowledge towards the accident prevention. The investigation received a clear picture regarding the different steps to be taken in different field to improve the same.

LIMITATIONS:

➢ Mother of under five children in Amethia salempur Anganwadi centre, Kakori, Lucknow.

➢ Sample size 52 mother of under five children

➢ The study was limited to the selected rural area at Lucknow

➢ Mother of under five children who are willing to participate.

➢ Those who are present at the time of data collection.

RECOMMENDATIONS:-

Based on the research finding the following recommendation can be made:-

➢ The same study can be replication on a large sample and also at different setting.

➢ A comparative study can be done between rural and urban mother of under five children

➢ A descriptive study on assessing the knowledge and attitude of school children on accident prevention and their practice can be done.

The effectiveness of various methods of teaching like interactive video and audio programme instructions, self instructional module about accident prevention, in implementing the knowledge and attitude of mother of under five children and their practice can be tested and evaluated through the research.

Conclusion

➢ In pre-test out of 52 mother of under five children,21.2% had inadequate knowledge, 78.8% had moderate knowledge, 0% had Adequate

knowledge. In post-test 0% had Inadequate knowledge,1.9% had Moderate knowledge, 98.1% had Adequate knowledge. The 't' value 37.39 was compared with tabulated table value at the level of $P<0.05$ was significant. So it has been concluded that the structure teaching programme on accident prevention among the mother of under five children was effective.

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