



# "A Study To Assess The Effectiveness Of Structure Teaching Program On Knowledge And Practice Regarding Prevention Of Home Accident Among The Mother's Of Under Five Children In Shampur Village Of Bhubaneswar, Odisha."

<sup>1</sup>URJITA MOHANTY

<sup>2</sup>URMILA PANDA

1. PhD SCHOLAR (DEPARTMENT OF CHILD HEALTH NURSING), ROURKELA SENIOR NURSING COLLEGE, SAMBALPUR UNIVERSITY, ODISHA, ORCID ID : 0009-0002-5523-6107
2. VICE-PRINCIPAL (DEPARTMENT OF MENTAL HEALTH NURSING), AMRI COLLEGE OF NURSING, BHUBANESHWAR, ODISHA, ORCID : 0009-0008-7761-447X

## ABSTRACT

Home accidents are unexpected and unintentional injuries that occur within the home environment, often resulting in harm to children. Common home accidents include fall, electrocution, burn, suffocation, foreign body aspiration, foreign body in ear, foreign body in nose, drowning, cut, choking, poisoning, which can lead to serious health complications or even death if not prevented. It was a Quasi-experimental one group Pre-test Post-test design was used to assess the effectiveness of structure teaching program on knowledge and practice regarding home accidents among the mother's of under five children at Shampur Village, Bhubaneswar. In this study mother's were selected by using simple random sampling technique and data was collected by using self-structured questionnaire method. In analysis, findings shows that there is significant association between Pre-test and Post-test knowledge among mother's of under five children as calculated 't' value is greater than tabulated 't' value i.e.  $8.74 > 2.05$  at 'p' value **0.05** level of significance.

In analysis, finding shows that there is significant association between Pre-test and Post-test practice score among mother's of under five children as calculated 't' value is greater than tabulated 't' value i.e.  $6.18 > 2.05$  at 'p' value **0.05** level of significance. Overall observation of level of knowledge shows that 53.3% of mother's had poor knowledge, 33.3% of mother's had average knowledge 13% had good knowledge and 0% had excellent knowledge and after structure teaching programme it increased to 3.3% of mother's had poor knowledge, 13.3% of mother's had average knowledge 33.3% had good knowledge and 50% had excellent knowledge

**KEYWORDS:** Study, Assess, Effectiveness, Structure Teaching Program, Knowledge, Practice, Prevention of Home Accident, Mother's of Under Five Children .

## INTRODUCTION

Child is the most precious possession of mankind most loved and perfect in its innocence Fragile, helpless, completely dependent on its caretakers, before entering to the world, the fetus is safe in mother's womb but the moment the infant enters the world in an uncertain place, where environment should be a safe haven for the child to grow free from any hazards, although the surrounding at times be dangerous.

Accidents are one of the five leading causes of death in developing countries yearly. 10% of children suffer for accident for which it is necessary to contact the health care services..As the primary caregivers and nurturers, mothers have a crucial role in protecting children from harm. Their awareness, knowledge, and practical skills in accident prevention directly influence the safety of their children.

International surveys have revealed that national statistics on pediatric emergencies differ. The global death rate for the 5 million children who died from injuries was 83.7 per 100,000per year on average. There have been 238,000recorded fall-related deaths. It is estimated that 376,000 children drowned in 2004; families with low and moderate incomes account for 97% of these deaths. To create an environment with safety for children's growth and development, a mother's knowledge on child safety and prevention of home accidents is essential.<sup>{1}</sup>

The **National Crime Records Bureau (NCRB)** of India reports that thousands of children die annually due to preventable home accidents. In Odisha, the risk is higher in rural areas due to poor housing conditions, lack of awareness, and limited access to immediate medical care.<sup>{37}</sup> Research evidence suggests that parents, especially mothers, play a vital role in preventing accidents at home through adequate knowledge and safe Practices. The WHO emphasizes that educating caregivers on home safety measures can reduce the occurrence of injuries by up to 60%.<sup>{2}</sup>

**Kaur, M., Deol, R., & Kaur, J. (2016)** conducted a descriptive study "to assess the prevalence of home accidents among children less than five years of age in selected rural areas of Ludhiana, Punjab." The objective of the study was to identify the magnitude and pattern of home accidents in rural children. The study revealed that 78% of the children had experienced home accidents, while 22% were unaffected. The prevalence was higher among males (43%) compared to females (35%). In terms of age group, the prevalence of home accidents was 6.14% in infants, 32.05% in toddlers, 23.08%. Among the various types of accidents, falls were the most common (28.57%), followed by poisoning (6.12%). The study concluded that home accidents are more common in children living in rural areas, especially among school-going children, due to unsafe environments and lack of supervision. The findings emphasized the need for preventive education and home safety awareness to reduce such incidents.<sup>{3}</sup>

**Samreen Khan et al (2023)** Domestic accidents among under-5-year children: "a study on the modern-day epidemic" Mother's education level had a significant association with the occurrence of domestic accidents (odd's ratio: 2.34, CI: 1.08-5.07). The study concluded that 75% domestic accidents among children are prevalent in the study area. Dissemination of injury prevention information with special focus on household modification and increased parental supervision are effective strategies to prevent unintentional injury.<sup>{4}</sup>

**Kumar A. (2017)** conducted a descriptive study in Tamil Nadu "To assess the prevalence of home accident among under-five children". The study revealed that 65% of children had experienced at least one form of home accident, with fall being the most common. The study highlighted the lack of safety measure at home and low awareness among caregiver.<sup>{5}</sup>

**Josephine R. (2018)** conducted a cross-sectional study in Kerala "To assess the knowledge and practice of mothers regarding home safety". The study found that only 80% of mothers had adequate knowledge, and a significant gap existed between what they knew and what they practiced. The study recommended community-based interventions for improving maternal awareness.<sup>{6}</sup>

**Nassuna Maureen (2023)** conducted a cross-sectional study titled “Factors Contributing to Home Accidents in Children Under 5 Years in Bulwa Zone, Lubaga Division, Kampala District” to explore the caretaker, child, and environmental causes of home injuries. Alarmingly, 66.7% of children had never received any safety training. Environmental risks included cemented floors (53.3%), presence of dogs (36.7%), and cooking on verandas (70%), all significantly associated with accident occurrence. Caregiver-related factors included lack of supervision due to time constraints (70%), reluctance to restrict children (60%), and alcohol consumption (68.8%). The study concluded that both environmental and behavioral risk factors strongly contribute to injury occurrence and it recommended health education for caregivers and children on injury prevention and home safety practices <sup>{7}</sup>

**Sushmitha HS, Usha NS, Vinay Kumar G (2022)** conducted a descriptive study to assess the knowledge on child safety measures of domestic accidents among mothers of under-five children in selected villages of Chamarajanagar district, Karnataka. The study revealed that the majority of participants (50%) were below 25 years of age. Most had completed high school (32%) or higher secondary education (30%). A significant number were housewives (86%), and 62% belonged to nuclear families. Mass media (42%) was identified as the major source of information on child safety. Among the 50 mothers: 10 (20%) had inadequate knowledge 39 (78%) had moderate knowledge Only 1 (2%) had adequate knowledge A statistically significant association was found between knowledge scores and occupation and family income ( $p < 0.005$ ), while other demographic variables such as age, education, religion, family type, and information sources did not show significant association. The study concluded that the majority of mothers possessed only moderate knowledge, indicating a need for structured educational interventions to enhance awareness on home safety measures for domestic accidents in under-five children. <sup>{8}</sup>

## PROBLEM STATEMENT

"A study to assess the effectiveness of structured teaching program on knowledge and practice regarding prevention of home accident among the mother's of under five children in Shampur village of Bhubaneswar, Odisha."

## OBJECTIVES OF THE STUDY

1. To assess the Pre-test of knowledge and practice regarding prevention of home accidents among mother's under five children.
2. To implement the structured teaching program knowledge and practice regarding prevention of home accidents among mother's under five children.
3. To assess the effectiveness of structured teaching program on knowledge and practice regarding prevention of home accidents among the mother's of under five children.
4. To assess the Post-test knowledge and practice score regarding prevention of home accidents among the mother's of under five children.
5. To find out the co-relation between pre-test and post -test knowledge and practice score of mother's regarding prevention of home accident.
6. To determine the association of Pre-test knowledge and practice score with their selected socio - demographic variables.

## ASSUMPTION

1. Mother's of under five children may have insufficient knowledge and improper Practice regarding prevention of home accident.
2. Environmental hazards in the home contribute to the risk of accidents.
3. Mother's included in this study will provide honest and accurate response about their home safety practices.
4. A structured teaching program can help to improve mother's knowledge and Practice regarding prevention of home accident.
5. Mother's of under five children can modified their home environment with low-cost safety measures to prevent home accident.

## HYPOTHESIS

**H<sub>0</sub>**: -There will be no significant difference between Pre-test and Post-test knowledge and Practice scores of the mother's regarding prevention of home accident.

**H<sub>1</sub>**: - There will be a significant difference between the Pre-test and Post test knowledge and Practice score of the mother's regarding prevention of home accident.

**H<sub>2</sub>**: -There will be a significant association between Pre-test knowledge and Practice scores with their selected socio-demographic variables

## METHODOLOGY

### Study Design

The research design adopted for the study is Quasi Experimental design (one group Pre-test and Post-test).

### Study Setting

The setting of present study was conducted in Shampur village, Bhubaneswar, Odisha.

### Population

**Target population:** - In the present study the target population includes mother's of under five children of Odisha.

**Accessible population:-** Mother's of under five children in Bhubaneswar.

### Sampling Method

In the present study, **Non-Probability Purposive Sampling Technique** namely purposive sampling technique was used to make the study more practicable and feasible.

### Sample Size

In this study, a total number of **30** samples were taken.

### INCLUSION CRITERIA:

- ❖ Mother's having a child below five years of age.
- ❖ Mother's of under five children who are willing to participate in this study.
- ❖ Mother's of under five children who can understand and speak Odia language.
- ❖ Mother's who are available during the time of data Collection.

### EXCLUSION CRITERIA:

- ❖ Mother's who are not willing to participate in the study.
- ❖ Mother's who were unable to understand Odia language.
- ❖ Mother's who are not available during the time of data collection.
- ❖ Mother's who have already receive formal training on prevention of home accident .

## DESCRIPTION OF TOOLS

NAME OF THE TOOL	VARIABLES TO BE MEASURED	METHODS TO BE USED
Self-structured socio- demographic questionnaire	Demographic variables	Questionnaire
Self-structured knowledge questionnaire	Knowledge	Questionnaire
Practice assessment questionnaire	Practice	Questionnaire

## SCORING PROCEDURE

SL. NO	SCORE	LEVEL OF KNOWLEDGE
1.	0-7	Poor knowledge
2.	8-14	Average knowledge
3.	15-22	Good knowledge
4.	23-30	Excellent knowledge

## DATA COLLECTION (Methods and Techniques)

1. Formal written permission was taken from principal of AMRI college of nursing to conduct the research project at Shampur village, Bhubaneswar.
2. Formal written permission was taken from Anganwadi health worker and corporator to conduct the research project at Shampur village, Bhubaneswar.
3. The data collection for the study was carried out from 10.08.2025 to 12.08.2025
4. The investigator first introduces herself to the respondent and explained the purpose of gathering information. They were assured and their responses would be kept confidential and used only for research purpose.
5. After identifying sample, objectives of the study were discussed. The investigator herself administered the tool for data collection which was carried out on the form of Pre-test and Post-test.
6. Pre -test was conducted followed by Structure teaching program followed by Post- test .
7. Subjects were made comfortable during the time of data collection.
8. After the data collection, the participants were thanked for their participation in the study.

## DATA ANALYSIS

1. Organization of data in master- sheet.
2. Socio-demographic was analysed using descriptive statistics i.e. frequency and percentage.
3. P-value was calculated to find out the knowledge and practice regarding prevention of home accident among the mother's of under five children.
4. Chi-square association of demographic variables with knowledge and practice regarding the prevention of home accident among the mother's of under five children.

## ETHICAL CONSIDERATION

Approval from Dissertation Committee and community Authorities. Informed consent from participants. Assurance of anonymity, confidentiality, and privacy. Voluntary participation.

**Result****PRE-TEST KNOWLEDGE SCORE OF MOTHER'S OF UNDER FIVE CHILDREN.**

SL.NO	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%)
1.	Poor	16	53.3%
2.	Average	10	33.3%
3.	Good	04	13%
4.	Excellent	0	0%

**POST-TEST KNOWLEDGE OF MOTHER'S OF UNDER FIVE CHILDREN**

SL.NO	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%)
1.	Poor	01	3.3%
2.	Average	04	13.3%
3.	Good	10	33.3%
4.	Excellent	15	50%

**PRE-TEST PRATICE OF MOTHER'S OF UNDERFIVE CHILDREN**

SL.NO	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%)
1.	Poor	09	30%
2.	Average	14	46.6%
3.	Good	06	20%
4.	Excellent	01	3.3%

**POST-TEST PRACTICE OF MOTHER'S OF UNDERFIVE CHILDREN**

SL.NO	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%)
1.	Poor	02	6.6%
2.	Average	06	20%
3.	Good	10	33.3%
4.	Excellent	12	40%

**CO-RELATION BETWEEN PRE-TEST AND POST- TEST KNOWLEDGE SCORE**

KNOWLEDGE SCORE	DIFFERENCE IN PAIRED TEST (d=A-B)	SQUARE OF DIFFERENCES (d <sup>2</sup> )	OF PAIRED 't' TEST	LEVEL OF SIGNIFICANCE (0.05)
Pre-test(A)				
Post-test(B)	$\sum d = (-404)$	$\sum d^2 = 7506$	8.74	2.05

- Degree of freedom (df) for the paired sample is 29 where 'n' is 30.
- By using formula of paired 't' test, calculated 't' value is 8.74 and tabulated value for 0.05 level of significance is 2.05.
- **8.74 > 2.05** i.e. calculated 't' value is greater than tabulated 't' value.

**CO-RELATION BETWEEN PRE-TEST AND POST-TEST PRACTICE SCORE**

KNOWLEDGE SCORE	DIFFERENCE IN PAIRED TEST (d=A-B)	SQUARE OF DIFFERENCES (d <sup>2</sup> )	OF PAIRED 't' TEST	LEVEL OF SIGNIFICANCE (0.05)
Pre-test(A)				
Post-test(B)	$\sum d = (-188)$	$\sum d^2 = 2072$	6.18	2.05

- Degree of freedom (df) for the paired sample is **29** where 'n' is **30**.
- By using formula of paired 't' test, calculated 't' value is 6.18 and tabulated value for **0.05** level of significance is 2.05.
- **6.18 > 2.05** i.e. calculated 't' value is greater than tabulated 't' value.

**CHI- SQUARE ASSOCIATION OF LEVEL OF KNOWLEDGE WITH THEIR SELECTED SOCIO DEMOGRAPHIC VARIABLES.**

SL. NO	DEMOGRAPHIC VARIABLE	CHI-SQUARE VALUE (CALCULATED)	D.F	CHI-SQUARE VALUE (TABULATED) P=0.05	INFERENCE ESS=EXTREMELY STATISTICALLY SIGNIFICANT NSS=NOT STATISTICALLY SIGNIFICANT SS=STATISTICALLY SIGNIFICANT
1.	Age	3.25	9	16.92	NSS
2.	Education	1.70	9	16.92	NSS
3.	Occupation	7.46	9	16.92	NSS
4.	Types of family	0.26	9	16.92	NSS
5.	Family monthly	6.22	9	16.92	NSS

	Income				
6.	Number of children under five years	1.37	9	16.92	NSS
7.	Previous history of fall	5.33	3	7.82	NSS
8.	Types of home	7.81	9	16.92	NSS
9.	Source of health information	2.44	9	16.92	NSS
10.	Care giver	3.97	9	16.92	NSS

Shows that chi square association of pre- test knowledge score of mother's of under five children with their selected socio demographic variables. In Age, Education, Occupation, Types of family, Family monthly income, Number of children under five-year, Previous history of fall, Types of home, Source of health information, Caregiver are 3.25, 1.70, 7.46, 0.26, 6.22, 1.37, 5.33, 7.81, 2.44, 3.97 which are less than the tabulated value at 0.05 level of significance.

## DISCUSSION

Findings related to demographic variables revealed that maximum numbers of mother's i.e. (56.70%) were in the age group 26-33 years age, (53.40%) mother's belongs to nuclear family, (43.30%) of mother's had graduation level of education, (53.30%) of mother's are non- working, (33.3%) of families monthly income is in between Rs. 5,000-10,000, (66.60%) are previous history of home accidents in child, (76.6%) families having one under five children, most of the sample (66.60%) are previous history of home accidents in child, (66.70%) are living in pucca house, (70%) are living in tiles floor in the house, (76.70%) are mother's takes care of the child most of the time.

In analysis, findings shows that there is significant association between Pre-test and Post-test Knowledge among mother's of under five children as calculated 't' value is greater than tabulated 't' value i.e.  $8.74 > 2.05$  at 'p' value 0.05 level of significance. findings shows that there is significant association between Pre-test and Post-test Practice among mother's of under five children as calculated 't' value is greater than tabulated 't' value i.e.  $6.18 > 2.05$  at 'p' value 0.05 level of significance.

Chi square association of pre-test Knowledge on mother's of under five children with their socio demographic variables, shows that Age, Education, Occupation, Family type, Income, Number of under five children, Previous history of fall, Housing type, Source of information and Care giver these are Not Statistically Significant as calculated values are 3.25, 1.70, 7.46, 0.26, 6.22, 1.37, 5.33, 7.81, 2.44, 3.97 which is less than the tabulated value at 0.05 level no of significance ( $p < 0.05$ ).

## CONCLUSION

On the basis of the findings of the study, the following conclusions are drawn. The findings of the study show that, there is significant association between Knowledge and Practice of home accidents among mother's of under five children with socio demographic variable. Overall pre- test and post-test knowledge regarding prevention of home accident among the mother's of under five children. About 53.3% of the mother's had poor knowledge ,33.3% had average knowledge and 13% had good knowledge and 1% mother's had excellent knowledge in pre- test. whereas which increase to 3.3% of the mother's had poor knowledge, 13.3% of them had average knowledge, 33.3% had good knowledge and about 50 % had excellent knowledge in post-test.

overall Pre-test and Post-test practice regarding prevention of home accidents among the mother's of under five children. About 30% of the mother's had poor practice, 46.6% had average practice, 20% had good practice and 3.3% had excellent practice in Pre-test. whereas about 6.6% of mother's had poor practice, 20% had average practice, 33.3% had good practice and 40% had excellent practice in Post-test.

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