



## A study to assess the effectiveness of structured teaching programme regarding knowledge and practices of mother on prevention of accidents among toddlers

Prabha Kashyap

[prabhaniwas13@gmail.com](mailto:prabhaniwas13@gmail.com)

Sister Nivedita Government Nursing College, IGMC, Shimla, Himachal Pradesh

### ABSTRACT

**Introduction:** Mother is an important care provider and she is strongly responsible to the safety of the children. Children are the most vulnerable group of our population. Childhood accident is a sudden cause of death in children. Accident means "sudden, unexpected harmful event", An accident is often a harmful event that could be avoided by a little careful thought. Child accidents are very common among toddlers. **Objectives:** This study was done to assess the effectiveness of structure teaching programme regarding knowledge and practice of mothers. to assess the knowledge of mothers regarding prevention of accidents among toddlers, to assess the practice of mothers regarding prevention of accidents among toddlers, to find out the effectiveness of structured teaching program regarding knowledge and practices of mothers on the prevention of accidents among toddlers, to find out the association between the selected demographic variables with knowledge and practice score of mothers regarding prevention of accidents among toddlers. **Material and Method:** The present study has been carried out in Mashobra village and sample was included 320 mothers of toddlers. A structured questionnaire sheet was developed by the researcher to collect data. A simple random sampling approach was followed in this study and interviewing each mother at her home performed collection of data. The main results obtained from the study were as follows: most of the mothers were very poor knowledge of prevention of common accidents among toddlers and nearly all home had at least two or three potential environmental hazards. **RESULTS:** The present study revealed that the overall pre-test mean knowledge score of mothers regarding prevention of accidents among toddlers was found 31.67% and post test score was 73.33% in area of overall accidents, According to mothers practice in different type of accidents the present study indicated that the majority of mothers had 100% poor practice and post practice score was 62.5% mothers have moderate practice and 37.5% of mothers have good practice score regarding prevention of accidents among toddlers. After administration of STP the knowledge and practice level of mothers increased tremendously. The present study recommended health promotion classes about causes of accidents, first aid, preventive measures and safety for mothers at MCH center, in service educational program toward first aid should be established for community health nurses at rural health units and MCH center, a well planned health education program about causes of accidents, first aid and prevention introduced to the curriculum. **Interpretation and Conclusion:** The study findings revealed that structured teaching programme was highly effective in improving knowledge and practice of mothers regarding prevention of accidents among toddler. **Key Word:** Effectiveness, Knowledge, Practice, Structured teaching programme, toddler.

**Keywords:** Effectiveness, Knowledge, Practice, Structured teaching programme, Toddler

### 1. INTRODUCTION

Mother is an important care provider and she is strongly responsible to the safety of the children. Children are the most vulnerable group of our population. Childhood accident is a sudden cause of death in children. An accident is often a harmful event that could be avoided by a little careful thought. Child accidents are very common among toddlers. During this age child is like a "Discovering machine" always searching for new things, because of curious (eagerness) and enthusiastic in nature they love to explore the environments persistently and does not understand the probable danger of their play. "Children are the wealth of tomorrow take care them, if you wish to have a strong India, ever ready to meet various challenges "Jawaharlal Nehru." [1]

The Mother has an important role to play in the life of her child. To appreciate the place of the mother in rearing her child, the Word of Sir, Johnson Spencer, "One Thousand Families Survey are worth recalling. He said, "In the study of these families and attempting to correlate their environment with the Health of children, there emerged one dominating factor. The capacity of mother, if she failed, her children suffer. If she coped with life skill fully and with pluck, she was safeguard to their health, so the mother presented as the custodian of the Child Health. [2]

All children are at risk for injury because of their normal curiosity, impulsiveness and desire to master new skills and children imitate adult behavior from an early age (Ashwill and Droske, 1997 and Walker, 2002). [3]

Life cannot be risk free but utilizing household safety measures can prevent most household accidents. Most of children feel safe and secure in their home, yet unfortunately at home is where many injuries and deaths occur (Alper, 2003). [4]

Accidents are unforeseen and unfortunate happening. A more precise term that refers to any injury that results from unintended exposure to physical agents including heat, mechanical energy, chemicals or electricity. Home accidents differ from country to another due to many factors such as economical and cultural factors. (Allender and Spradley-2001). [5] The largest number of accidents happens in the living room, however the most serious accidents happen in the kitchen (Hadd, 1994 and Hogg, 1996). [6]

The main causes of accidents in the home are falls, fires and burns, drowning, suffocation, choking, poisoning and cuts and lacerations (Walker, 2002 and Bradley, 1987). [7] Accidents are one of the five leading causes of death in industrialized and developing countries (Goldman, 1995, Stanphope and Lancaster, 1996). [8] Also accident is the leading cause of death and is a major reason for hospital admission and long term of disability in this age group from 3 to 5 years (Robinson and Robertson, 2003). [9] Injuries arising from home accidents are increasing community health problems (Sattin et al., 1998). [10]

Accidents in Egypt are a major cause of morbidity and mortality in children below 5 years and children within 14 years. In Egypt in 1998, the overall prevalence of injuries in indoors home environment were 72.5% among children below 5 years (Amin et al., 1998). [11] Also in El- Assara village, in Assiut Governorate in 1998 the incidence of home accidents among children age (0-<18) year was 59% (Hamza,2000). [12]

### **1.2 Statement of the problem**

A study to assess the effectiveness of structured teaching program regarding knowledge and practice of mothers on prevention of accidents among toddlers in selected rural community area at Mashobra, Shimla,(Himachal Pradesh).

### **1.3 Objectives of the study**

- To assess the knowledge of mothers regarding prevention of accidents among toddlers.
- To assess the practice of mothers regarding prevention of accidents among toddlers.
- To find out the effectiveness of structured teaching program regarding knowledge and practices of mothers on the prevention of accidents among toddlers.
- To find out the association between the selected demographic variables with knowledge and practice score of mothers regarding prevention of accidents among toddlers.

### **1.4 Operational Definitions**

- Effectiveness:** It refers to the significant gain in knowledge as measured by the instrument and shown by post test knowledge scores.
- Structured teaching program:** It refers to the systematically developed teaching plan and teaching aids designed for mothers of toddlers to provide information on prevention of accidents.
- Knowledge:** It refers to ability of mothers to respond to the structured interview schedule regarding prevention of accidents among toddlers as evident from their knowledge scores.
- Practice:** It refers to those verbal responses of mothers to the knowledge of practices in response to the structured interview schedule regarding prevention of accidents evident from their practice scores.
- Mothers of toddlers:** It refers to those mothers who have children between the age group of 1-3 years.
- Prevention of accidents:** Prevention of accidents means any action of mothers directed to avoid fatal events that occurs at home resulting in bodily injury.
- Accidents:** They are unpleasant, fatal injury, which happens unexpectedly.
- Toddlers:** The children who are between 1 – 3 years of age

### **1.5 Hypotheses of the Study**

**H<sub>1</sub>:** The mean post test knowledge scores of mothers regarding prevention of accident among toddlers will be significantly higher than the mean per test knowledge score.

**H<sub>2</sub>:** There will be a significant association between pre-test and post-test knowledge and selected demographic variables such as age of mothers, religion, type of family, occupation of mother, education status of mother, monthly income of parents, age of toddler, gender of toddlers.

### **1.6 Variables**

Two types of variables are identified in this studies, they are:

- **Attributed variables:** In this study age, religion, education of parents, occupation of the parents, family income, type of family, sources of information, age of toddlers, gender of toddlers and mother tong on prevention of accidents among toddlers.
- **Dependent variable:** In the present study the dependent variable is the level of knowledge and practice of mothers regarding prevention of accidents among toddlers.

**1.7 Criteria for selection of sample**

**1.7.1 Inclusion criteria**

- Mother’s of toddlers who are willing to participate.
- Mother’s of toddlers who are available during the period of data collection.
- Mother’s of toddlers between the ages of 20 to 45 years.

**1.7.2 Exclusion criteria**

- Mother’s of toddlers who are not willing to participate.
- Mother’s of toddlers who are not available during the period of data collection.
- Mother’s of toddlers who are below 20 years and above 45 years of age.

**1.8 Assumption**

The study assumed that

- Mothers possess some knowledge regarding prevention of accidents among toddler hood.
- Structured teaching program is an accepted teaching program among mothers.
- Mothers are interested to learn about common accidents among toddlers.
- Any instruction material will improve the knowledge

**1.9 Delimitation**

- The study is limited to mothers of toddlers
- The study is limited to mothers of toddlers in selected community area
- The data collection period is delimited for a period of six weeks

**1.10 Conceptual Framework**

The present study aims at evaluating the effectiveness of a structured teaching program for mothers regarding knowledge and practice on prevention of accidents among toddlers. In this study, Imogene M. King’s goal attainment theory was selected. The theory is based on the assumption that humans are open systems and who are having constant interaction with their environment. The major concepts in this theory of goal attainment are interaction, perception, communication, transaction, role, stress, growth and development, time and space.

**2. MATERIAL AND METHODS**

The present study is aimed to assess the effectiveness of structured teaching program on knowledge and practice of mothers regarding prevention of accidents among toddlers in selected rural community areas at Mashobra, Shimla (Himachal Pradesh).

Steps undertaken for gathering and organizing the data were: the research approach, design, setting, sample, sampling technique, sample size, criteria for sample selection, description of the tool, validity, reliability, pilot study, data gathering process, plan for data analysis, and presentation of findings and ethical approval.

**3. RESEARCH APPROACH**

In the present study the investigator wished to assess the effectiveness of structure teaching program regarding knowledge and practice of mothers on prevention of accidents among toddlers in selected rural community areas at Mashobra, Shimla Himachal Pradesh, hence the research approach adopted for this study was an evaluative approach.

**4. RESEARCH DESIGN**

The research design used in this study is the Quasi experimental -one group pre test post test design to assess the effectiveness of STP regarding knowledge and practice of mothers on prevention of accidents among toddlers.

**Table 1: Schematic Representation Of Research Design**

Group	Pretest	Intervention	Posttest
Three hundred (320) mothers of toddlers	Q <sub>1</sub>	X	Q <sub>2</sub>

**4.1 Keys**

X –Structured Teaching Program regarding knowledge and practice of mothers on prevention of accidents among toddlers.

Q<sub>1</sub> – Pre test on knowledge of mothers on prevention of accidents among toddlers.

Q<sub>2</sub> – Post test on knowledge of mothers on prevention of accidents among toddlers

- Setting Of The Study: The study was conducted at selected rural community area Mashobra Shimla Himachal Pradesh
- Population: The target population was 320 mothers of toddlers.
- Sampling Technique: In order to assess the knowledge of mothers regarding childhood accidents a simple random sampling technique was used.
- Sample Size: Three hundred and twenty mothers who met the inclusion criteria were selected.
- Sampling Criteria
- Inclusion Criteria
- Exclusion Criteria

#### 4.2 Selections and development of the tool

The investigator developed a structured questionnaire to collect the demographic data to assess the knowledge and practice of mothers regarding prevention of accidents.

#### 4.3 Description of the tool

Structured interview questionnaire was developed based on relevant literature to describe the effect of mother's education and age in relation to home accidents prevention, it contained the following data:

#### 4.4 Steps of preparing health education

Health education was developed by the investigators using the steps below:

- Forming the outline of the teaching plan
- Preparing the outline of the content.
- Deciding method of instruction and Audio Visual aids.

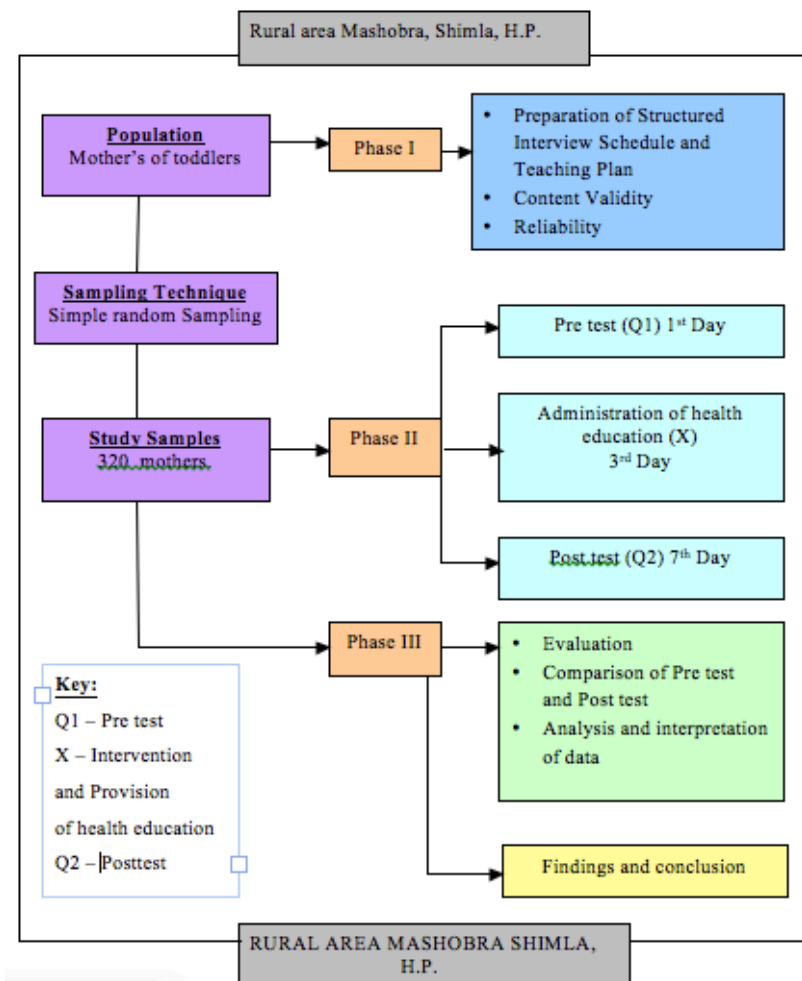


Fig. 1: Schematic Representation of Study Design

#### 4.5 Forming The Outline Of The Teaching Plan

The existing knowledge of the samples was assessed using a structured questionnaire. The outline of teaching plan was framed which include setting of the general and specific objectives, specifying the date, time, place, size of the group, number of session and duration of the session.

#### 4.6 Preparing the outline of the content

The content of the teaching plan includes topics on definition of accidents, types of accidents, burns and scalds and its preventive measures, poisoning and its prevention drowning and its preventive measures, foreign body aspiration and its prevention, falls and its preventive measures, cuts and its preventive measures, electrocutions and its prevention, bite and its preventive measure, stings and its preventive measures and road traffic accidents and its preventive measures.

#### 4.7 Deciding methods of instruction and audio visual aids

The method of instruction adopted was lecture method, and Visual aids like charts and flash cards were used.

- **Content validity:** The interview schedule was prepared and given to experts for content validity who were requested to render their opinion about the relevance of the items of the study. The total was modified as per the recommendation of the experts.
- **Reliability:** In order to establish the reliability of the tool, split half method was used. The tool was administered to mothers who qualified the inclusion criteria. The tool was found reliable ( $r=0.8$ ) for data collection.

- **Pilot study:** A pilot study was carried out before performing the actual study on thirty two mothers in order to test the validity and clarity of the tools items as well as to estimate the time needed for data collection, the necessary modifications were done, and those participants were excluded from the sample. Ambiguous and unnecessary parts were deleted and new questions were added with expert’s opinion and guidance.
- **Procedure for data collection:** Data was collected through home visits by interviewing every mother individually at her home to identify her knowledge and practice towards accidents prevention among toddlers. The average number interviewed was 18-20 cases per day and average time taken for completing each sheet was around 15- 20 minutes, this was depending on the response of the mothers. Formal permission was obtained from the concerned authority to conduct the study. The study was conducted during the month of June 2015 to September 2015. Samples were selected in accordance with laid down criteria’s consent was obtained from each subject after giving one day followed by health education and on day seventh post test was taken.
- **Plan for data analysis:** The demographic variables were described in terms of frequency and percentage. A paired‘t’ test was done with mean pretest and post test knowledge scores to assess the effectiveness of knowledge and practice regarding prevention of accidents among toddlers. Chi-square test was used to test significance. Significance level used was 0.05. The collected data were tabulated and analyzed using SPSS statistical package version 20.
- **Ethical approval:** No objection certificate was obtained from Himachal Pradesh Govt. to study further on part time basis. The proposed study was conducted after the approvable of dissertation committee of Maharaja Vinayak Global University Jaipur, Rajasthan. Permission was obtained from the Medical Officer, PHC Mashobra. A written informed consent (in Arabic language) was obtained from mothers before participation. Assurance was given to them that the anonymity of each individual would be maintained.

**5. RESULT**

This chapter deals with analysis and interpretation of data collected from 320 mothers regarding prevention of accidents among toddlers. Keeping in a view the objectives of the study use one group pre test, post test design through pre experimental approach which was adopted to evaluate the effectiveness of the structured teaching program on knowledge and practice of mothers regarding prevention of accidents among toddlers in selected rural community area at Mashobra, district Shimla, Himachal Pradesh. The data was collected from the respondents before and after the structure teaching program. The collected information was organized, tabulated, analyzed and interpreted using descriptive and inferential statistics. Analysis was done based on the objectives and hypothesis of the study. The level of significance was set at 0.05 levels.

**6. RESEARCH HYPOTHESES**

**H1:** The mean post test knowledge scores of mothers regarding prevention of accident among toddlers will be significantly higher than the mean per test knowledge score.

**H2:** There will be a significant association between pre-test and post-test knowledge and selected demographic variables such as age of mothers, religion, types of family, occupation of mothers, education status of the mothers, family monthly income, sources of health information, age of toddlers, gender of toddler.

**Section–A: Distribution of the subjects according to socio-demographic Variables:**

The obtained data of sample characteristics were described under the subheadings which include age of mothers, religion, types of family, occupation of mothers, education status of the mothers, family monthly income, sources of health information, age of toddlers, gender of toddlers.

**Section A:**

**Table 2: Shows distribution of the subjects according to socio-demographic variable**

S no.	Demographic variables	No	N.320 %
<b>(i)</b>	<b>Age of the mother</b>		
	a. <20 years	48	15
	b. 21--30 years	104	32.5
	c. 31--40 years	120	37.5
	d. 41 and Above	48	15
<b>(ii)</b>	<b>Religion</b>		
	a. Hindu	224	70
	b. Muslim	16	5
	c. Christian	80	25
	d. Other (if any)	0	0
<b>(iii)</b>	<b>Type of family</b>		
	a. Nuclear family	224	70
	b. Joint family	96	30
	c. Extended family	0	0
<b>(iv)</b>	<b>Occupation of mother</b>		
	a. House wife	112	35
	b. Laborer	128	40
	c. Employee	72	22.5

	d. Business	8	2.5
<b>(v)</b>	<b>Educational Status</b>		
	a. Illiterate	200	62.5
	b. Primary School	16	5
	c. High School	104	32.5
	d. PUC and Above	0	0
<b>(vi)</b>	<b>Family monthly income</b>		
	a. Below Rs. 1000	168	52.5
	b. Rs. 1000 --3000	128	40
	c. Rs. 3000--5000	24	7.5
	d. Rs. 5000 and above	0	0
<b>(vii)</b>	<b>Source of health information</b>		
	a. Printed media	192	60
	b. Electronic media	48	15
	c. Relatives	56	17.5
	d. Health Personnel	24	7.5
<b>(viii)</b>	<b>Age of toddler</b>		
	a. 1 year	32	10
	b. 2 years	104	32.5
	c. 3 years	184	57.5
<b>(ix)</b>	<b>Gender of toddler</b>		
	a. Male	208	65
	b. Female	112	35

This table present frequency and percentage distribution of knowledge and practice of mothers regarding prevention of accidents among toddlers with demographic variables such as age of mother, religion, type of famoly, occupation of mothers, education status, family incom,source of health information, age of toddler, gender of todler.

With regard to age, maximum number of 48 (15%) belongs to <20 age group, 104(32.5%) belongs to 26-30 age groups ,120 (37.5%) belongs to 31-40 age group,48 (15%) belongs to 41 and above age group. With regard to their religion 224(70%) were Hindu, 96(5%) were Muslim,80(25%) were Chrishine. With regard to the type of family 224(70%) were nuclear families,96(30%) were joint familes. With regard to their occupation 112(35%) were house wife, 128(40%) were labourer, 72(22.5%) were employees and 8(2.5%) were in business women.With regard to educational status 200(62.5%) were illtrate, 16(5%) were completed primary education, 104(32.5%) were finished secondery education. With regard to their monthly income 168(52.5%) were earning less then 1000 rupees per month,128(40%) earning 1000-3000 and 24(7.5%) were getting 3000-5000/monthly. With regard to sourec of health information 192(60%) were getting information by printion media, 48(15%) from electronic media,56(17.5%) from relatives and very less 24(7.5%) from health personnel. With regard of age of the toddler 32(10%) children were one year of age group,104(32.5%) children were in two years of age, 184(37.5%) children were in three year of age With regard of the gender of the toddler 208(65%) were male child, 112(35%) were female child.

n=320

Domain	Statements	Max Score	Range	Mean	SD	Mean %
General Information	5	5	0--4	1.78	0.8	35.6
Burns and Scalds	4	4	0--2	1.15	0.48	28.75
Poisoning	2	2	0--2	0.7	0.56	35.00
Drowning	2	2	0--1	0.63	0.49	31.50
Foreign body aspiration	3	3	0--2	0.88	0.4	29.33
Falls	2	2	0--2	0.57	0.54	28.5
Cuts and Abrasions	2	2	0--2	0.63	0.54	31.5
Electrocutions	2	2	0--2	0.6	0.55	30
Dog Bites	2	2	0--2	0.58	0.54	29
Snake Bite	2	2	0--1	0.65	0.48	32.5
Stings	2	2	0--2	0.7	0.56	35
Road Traffic Accidents	2	2	0--2	0.65	0.57	32.5
Overall	30	30	3--15	9.5	2.6	31.67

Above table Shows domain wise Pre test means knowledge scores of subjects regarding prevention of accidents among toddlers. Domain wise mean % knowledge score of mothers regarding prevention of accidents among toddlers was 35.6%with SD 0.8 in the area of general information, 28.79% with SD 0.48 in the area of burns and scalds, 35% with 0.56 in the area of poisoning, 31.50% with SD 0.49 in the area of drowning, 29.33% with SD 0.4 in the area of foreign body aspiration, 28.5% with SD 0.54 in the area of falls, 31.5% with SD 0.54 in the area of cuts and abrasions, 30% with SD 0.55 in the area of electrocution, 29% with SD 0.54 in the area of dog bites, 32.5% with SD 0.54 in the area of snake bites,35% with SD 0.56 in the area of stings, 32.5% with SD 0.56 in the area of road traffic accidents and over all 31.67 % with SD 2.6 in all areas.

		n=320
Level of knowledge	No	%
Inadequate (<50%)	0	0
Moderate (50--75%)	216	67.5
Adequate (>75%)	104	32.5

Above table explain post test knowledge level of subjects regarding prevention of accidents. Above table explain that majority of the mothers 67.5% have adequate knowledge and 32.5% of the mothers have moderate knowledge in post scores.

n=320						
Domain	Max Statement	Max Score	Range	Mean	SD	Mean %
Posttest Knowledge	30	30	18-28	22	2.6	73.33

Above table Assess the Post test knowledge level of subjects regarding prevention of accidents. Above table shows that majority of the mothers were mean % 73.33 % with the SD of 2.6. have adequate knowledge in different domains.

n=320						
Domain	Statements	Max Score	Range	Mean	SD	Mean %
General Information	5	5	1--5	3.5	0.93	70
Burns and Scalds	4	4	1--4	3.2	0.76	80
Poisoning	2	2	0--2	1.42	0.71	71.00
Drowning	2	2	1--2	1.52	0.5	76
Foreign body aspiration	3	3	1--3	2.1	0.7	70
Falls	2	2	0--2	1.52	0.64	76
Cuts and Abrasions	2	2	0--2	1.47	0.64	73.5
Electrocutions	2	2	0--2	1.55	0.63	77.5
Dog Bites	2	2	1--2	1.65	0.48	82.5
Snake Bite	2	2	0--2	1.45	0.59	72.5
Stings	2	2	0--2	1.45	0.63	72.5
Road Traffic Accidents	2	2	0--2	1.42	0.54	71
Overall	30	30	18--28	22	2.6	73.33

Above table shows aspect wise Post test knowledge level of mothers regarding prevention of accidents among toddlers. Domain wise mean % knowledge score of mothers regarding prevention of accidents among toddlers was 70 %with SD 0.92 in the area of general information, 80% with SD 0.76 in the area of burns and scalds, 71% with 0.71 in the area of poisoning, 76% with SD 0.5 in the area of drowning, 70% with SD 0.7 in the area of foreign body aspiration, 76% with SD 0.64 in the area of falls, 73.5% with SD 0.64 in the area of cuts and abrasions, 77.5% with SD 0.63 in the area of electrocution, 82.5% with SD 0.48 in the area of dog bites, 72.5% with SD 0.59 in the area of snake bites, 72.5% with SD 0.63 in the area of stings, 72.5% with SD 0.59 in the area of road traffic accidents and over all 73.33 % with SD 2.6 in all areas.

n=320			
Level of practice	Score	No	%
Poor	<50%	320	100
Moderate	50--75%	0	0
Good	> 75%	0	0

Above table Assess the practice of mothers regarding prevention of accidents among toddlers. Above table shows that majority 100% of the mothers have very poor practice regarding prevention of accidents.

n=320						
Domain	Max Statement	Max Score	Range	Mean	SD	Mean%
Pretest Practice	20	20	4--8	6.38	1.15	31.9

Above table Assess the pre test practice level of mothers regarding prevention of accidents among toddlers. Above table shows domain wise practice of mothers on prevention of accidents majority of mothers shows 31.9% with SD 1.15 in all areas of accidents

**n=320**

Level of practice	Score	No	%
Poor	<50%	0	0
Moderate	50--75%	200	62.5
Good	> 75%	120	37.5

Above table Assess the post test practice of mothers regarding prevention of accidents among toddlers. Above table shows post test practice level of mothers. Maximum 62.5% of mothers have moderate knowledge and 37.5% of mothers have good knowledge.

**Section: B**

**n=320**

Level of knowledge	Pre test		Post test	
	No	%	No	%
Inadequate (<50%)	304	95	0	0
Moderate (50--75%)	16	5	216	67.5
Adequate (>75%)	0	0	104	32.5

Table Find out the effectiveness of structured teaching program regarding Knowledge of mothers on the prevention of accidents among toddlers. Post test knowledge level of mothers regarding prevention of accidents among toddlers. Table shows that majority of the mothers 32.5% have adequate knowledge and 67.5% of the mothers moderate knowledge after structure teaching program.

				n=320
Domain	Mean	SD	Mean %	Paired 't' test
Pre test Knowledge	9.5	2.6	31.67	31.05**
Post test Knowledge	22	2.63	73.33	
Enhancement	12.5	0.03	41.66	

\*\* Significant at P > 0.001 level (df 39, t-2.42)

Above table Over all pretest and posttest mean knowledge scores of mothers regarding prevention of accidents among toddlers. Above table shows pre test and post test knowledge of mother's domain wise. Over all pre test mean % was 31.67% with SD 2.6 and post was 73.33 with SD 2.63. Enhancement score was 41.66 % with SD 0.03. Paired 't' test was 31.05\*\*

**n=320**

Domain	Mean	SD	Mean %	Paired 't' test
General Information	1.72	1.24	34.4	8.79**
Burns and Scalds	2.05	0.81	51.25	15.9**
Poisoning	0.72	0.64	36	7.16**
Drowning	0.89	0.7	44.5	8.02**
Foreign body aspiration	1.22	0.86	40.67	8.98**
Falls	0.95	0.71	47.5	8.4**
Cuts and Abrasions	0.84	0.73	42	7.3**
Electrocutions	0.95	0.71	47.5	8.41**
Dog Bites	1.07	0.69	53.5	9.79**
Snake Bite	0.8	0.75	40	6.67**
Stings	0.75	0.74	37.5	6.7**
Road Traffic Accidents	0.77	0.77	38.5	7.42**
Overall	12.5	1.8	41.67	31.05**

\*\* Significant at P > 0.001 level (df 39, t-2.42)

Above table Find out the domain wise effectiveness of structured teaching program regarding Knowledge of mothers on the prevention of accidents among toddlers. Domain wise mean % knowledge score of mothers regarding prevention of accidents among toddlers was 34.5 %with SD 1.24 and Paired 't' test was 8.79\*\* in the area of general information, 51.25% with SD 0.81 and paired 't' test was 15.9\*\* in the area of burns and scalds, 36% with 0.64 and paired 't' test was 7.16\*\* in the area of poisoning, 44.5%% with SD 0.7 in the area of drowning, 40.67% with SD 0.86 and paired 't' test was 8.98\*\*in the area of foreign body aspiration, 47.5% with SD 0.71 and paired 't' test was 8.4\*\* in the area of falls, 42% with SD 0.74 and paired 't' test was 7.3\*\*in the area of cuts and abrasions, 47.5% with SD 0.713 and paired 't' test was 8.41\*\*in the area of electrocution, 53.5% with SD 0.69 and paired 't' test was 9.79\*\* in the area of dog bites, 40% with SD 0.75 and paired 't' test was 6.67\*\*in the area of snake bites,37.5% with SD 0.74 and paired 't' test was 6.7\*\*in the area of stings, 38.5% with SD



0.77 and paired 't' test was 7.42\*\* in the area of road traffic accidents and over all 41.67 % with SD 1.8 and paired 't' test was 31.05 \*\* in all areas of accidents.

n=320

Level of Practice	Pre test		Post test	
	No	%	No	%
Poor (<50%)	320	100	0	0
Moderate (50--75%)	0	0	200	62.5
Good (>75%)	0	0	120	37.5

Above table Find out the effectiveness of structure teaching program regarding practice of mothers on prevention of accidents. Shows the effectiveness of structure teaching program regarding practice of mothers on prevention of accidents. Above table shows effectiveness of structure teaching program regarding practice of mothers on prevention of accidents. Pre test scores were 100% poor practice and post test scores were majority 62.5% mothers have moderate practice and 37.5% of mothers have good practice scores.

n=320

Domain	Mean	SD	Mean%	Paired 't' test
Pre test	6.38	1.15	31.9	26.67**
Post test	14.75	1.9	73.75	
Enhancement	8.37	0.75	41.85	

\*\*Significant at P > 0.001 level (df 39, t=2.42 )

Above table Shows overall mean knowledge score of mothers before and after Structured Teaching Program. The given table explain overall mean knowledge score before and after Structured Teaching Program. The overall knowledge score in pretest is 6.38 and post test score is 14.75.

The mean knowledge score of the mothers on prevention of accidents among toddler had an enhancement of post knowledge score observed by mean of 8.38, mean % of 41.85 and with SD of 0.75. The paired t-test score (26.67) . Since the post test knowledge score is more than the pre test, the Structured Teaching Program was effective. The comparison of pretest and posttest knowledge scores reveals that overall improvement mean % was 41.85% with SD 0.75. The obtained value was higher than the table value, t=2.42 which is highly significant at 0.001 level than the table value so the research hypothesis (H<sub>1</sub>) is accepted and the null hypothesis is rejected. So it indicates that structure teaching program was effective

**Section: C**

n=320

S no.	Demographic variables	No	%	Level of knowledge				Chi square
				< Median (168)		> Median (152)		
				No	%	No	%	
<b>(i)</b>	<b>Age of the mother</b>							1.08 df 3 N.S
	a. <20 years	48	15	40	83.33	8	16.67	
	b. 21--30 years	104	33	96	69.23	8	30.77	
	c. 31--40 years	120	38	40	33.33	80	66.67	
	d. 41 and Above	48	15	16	33.33	32	66.67	
<b>(ii)</b>	<b>Religion</b>							1.93 df 2 N.S
	a. Hindu	224	70	96	42.86	128	57.14	
	b. Muslim	16	5	16	100.0	0	0.00	
	c. Christian	80	25	56	70.00	24	30.00	
	d. Other (if any)	0	0	0	0.00	0	0.00	
<b>(iii)</b>	<b>Type of family</b>							1.99 df 2 N.S
	a. Nuclear family	224	70	136	60.71	88	39.29	
	b. Joint family	96	30	32	33.33	64	66.67	
	c. Extended family	0	0	0	0.00	0	0.00	
<b>(iv)</b>	<b>Occupation of mother</b>							2.12 df 3 N.S
	a. House wife	112	35	80	71.43	32	28.57	
	b. Laborer	128	40	64	50.00	64	50.00	
	c. Employee	72	23	24	33.33	48	66.67	
	d. Business	8	2.5	0	0.00	8	100.00	
<b>(v)</b>	<b>Educational Status</b>							7.64 df 2
	a. Illiterate	200	63	168	72.00	32	28.00	
	b. Primary School	16	5	16	100.0	0	0.00	

	c. High School	104	33	8	7.69	96	92.31	S*
	d. PUC and Above	0	0	0	0.00	0	0.00	
<b>(vi)</b>	<b>Family monthly income</b>							
	a. Below Rs. 1000	168	53	112	66.67	56	33.33	1.69
	b. Rs. 1000 --3000	128	40	48	37.50	80	62.50	df 2
	c. Rs. 3000--5000	24	7.5	8	33.33	16	66.67	N.S
	d. Rs. 5000 and above	0	0	0	0.00	0	0.00	
<b>(vii)</b>	<b>Source of health information</b>							
	a. Printed media	192	60	120	62.50	72	37.50	1.21
	b. Electronic media	48	15	16	33.33	32	66.67	df 3
	c. Relatives	56	18	24	42.86	32	57.14	N.S
	d. Health Personnel	24	7.5	8	33.33	16	66.67	
<b>(viii)</b>	<b>Age of toddler</b>							
	a. 1 year	32	10	24	75.00	8	25.00	3.23 df 2
	b. 2 years	104	33	80	76.92	24	23.08	
	c. 3 years	184	58	64	34.78	120	65.22	N.S
<b>(ix)</b>	<b>Gender of toddler</b>							
	a. Male	208	65	136	65.38	72	34.62	2.34
	b. Female	112	35	32	28.57	80	71.43	df 1 N.S

N.S- Not Significant S- Significant at P < 0.05level

Above table Associate post test knowledge with their selected demographic variables. To associate post test knowledge with their selected demographic variables. The analysis of association of selected demographic variables with pretest level of knowledge using chi-square test revealed that there was no significant association between the pretest level of knowledge and selected demographic variables such as age of the mothers, religion, type of family, occupation of mother, education of mothers, monthly income, source of health information, age of toddler and gender of toddler. Since the obtained value is less than the table value at 0.05 level of significance. So the null hypothesis is accepted and the research hypothesis is rejected. There was a significant association between pretest level of knowledge and selected demographic variables. The obtained value is more than the table value at P<0.05 level of significance. So the research hypothesis is accepted and the null hypothesis is rejected

n=320

S no.	Demographic variables	No	%	Level of Practice				Chi square
				< Median (272)		> Median (48)		
				No	%	No	%	
<b>(i)</b>	<b>Age of the mother</b>							
	a. <20 years	48	15	40	83.33	8	16.67	2.17 df 3 N.S
	b. 21--30 years	104	33	96	92.31	8	7.69	
	c. 31--40 years	120	38	104	86.67	16	13.33	
	d. 41 and Above	48	15	32	66.67	16	33.33	
<b>(ii)</b>	<b>Religion</b>							
	a. Hindu	224	70	208	92.86	16	7.14	6.62 df 2 S*
	b. Muslim	16	5	16	100.00	0	0.00	
	c. Christian	80	25	48	60.00	32	40.00	
	d. Other (if any)	0	0	0	0.00	0	0.00	
<b>(iii)</b>	<b>Type of family</b>							
	a. Nuclear family	224	70	200	89.29	24	10.71	1.34
	b. Joint family	96	30	72	75.00	24	25.00	df 2
	c. Extended family	0	0	0	0.00	0	0.00	N.S
<b>(iv)</b>	<b>Occupation of mother</b>							
	a. House wife	112	35	104	92.86	8	7.14	6.79
	b. Laborer	128	40	112	87.50	16	12.50	df 3
	c. Employee	72	23	56	77.78	16	22.22	N.S
	d. Business	8	2.5	0	0.00	8	100.00	
<b>(v)</b>	<b>Educational Status</b>							
	a. Illiterate	200	63	168	84.00	32	16.00	0.37
	b. Primary School	16	5	16	100.00	0	0.00	df 2
	c. High School	104	33	88	84.62	16	15.38	S*
	d. PUC and Above	0	0	0	0.00	0	0.00	
<b>(vi)</b>	<b>Family monthly income</b>							
	a. Below Rs. 1000	168	53	152	90.48	16	9.52	1.46
	b. Rs. 1000 --3000	128	40	104	81.25	24	18.75	df 2

	c. Rs. 3000--5000	24	7.5	16	66.67	8	33.33	N.S
	d. Rs. 5000 and above	0	0	0	0.00	0	0.00	
<b>(vii)</b>	<b>Source of health information</b>							
	a. Printed media	192	60	184	95.83	8	4.17	9.51 df 3
	b. Electronic media	48	15	40	83.33	8	16.67	
	c. Relatives	56	18	40	71.43	16	28.57	S*
	d. Health Personnel	24	7.5	8	33.33	16	66.67	
<b>(viii)</b>	<b>Age of toddler</b>							
	a. 1 year	32	10	24	75.00	8	25.00	0.98 df 2
	b. 2 years	104	33	96	92.31	8	7.69	
	c. 3 years	184	58	152	82.61	32	17.39	N.S
<b>(ix)</b>	<b>Gender</b>							
	a. Male	208	65	184	88.46	24	11.54	0.69 df 1 N.S
	b. Female	112	35	88	78.57	24	21.43	

N.S- Not Significant S- Significant at  $P < 0.05$  level

Table 17. Associate post test Practice with their selected demographic variable. To Associate post test Practice with their selected demographic variables.

The analysis of association of selected demographic variables with post test level of knowledge using chi-square test revealed that there was no significant association between the pretest level of knowledge and selected demographic variables such as age of the mothers, religion, type of family, occupation of mother, education of mothers, monthly income, source of health information, age of toddler and gender of toddler. Since the obtained value is less than the table value at  $P < 0.05$  level of significance. So the null hypothesis is accepted and the research hypothesis is rejected. There was a significant association between post test level of knowledge and selected demographic variables. The obtained value is more than the table value at  $P < 0.05$  level of significance. So the research hypothesis is accepted and the null hypothesis is rejected.

## 7. DISCUSSION

The toddlerhood is considered a critical period of life where the child learns to investigate and react with his surrounding and they move curious move too much (Wong et al., 1999). Preschool children accidents are an important cause of injuries and deaths so that accidents among toddlers are important problems that need active reduction intervention (Shatanawi, 1992). to do as soon as they occur (Ibrahim, 1991).[ 194]

So the aim of the present study was to assess the effectiveness of the structure teaching programme regarding knowledge and practices of mothers on prevention of accidents among toddlers.

The present study revealed that the pre test score of mothers (31.67%) were not very good regarding prevention of accidents in overall aspect of mothers of toddlers. The present study shows that majority of mothers have inadequate knowledge about prevention of accidents among toddlers.

### **Objective: 1. To assesses the knowledge of mothers regarding prevention of accidents among toddlers.**

Based on the objectives of the study the findings of pre test knowledge score of mothers regarding prevention of accidents among toddler's shows that they were able to answer to some extent. The study shows that mothers in pre test were having a mean percentage score of 31.67% of knowledge regarding prevention of accidents among toddlers in overall aspects. Mother's pre test level of knowledge shows that 100% of mothers have inadequate knowledge. Considering the aspects of prevention of accidents among toddlers they are having below average knowledge regarding prevention of accidents among toddlers.

A study was conducted on accidents in the first 5 years of life. A report from the Dunedin Multidisciplinary Child Development Study shows that 486 children from a sample of 991 children had 729 accidents in the first 5 years of life, 16% of the children had two or more accidents and 10% of the accidents resulted in hospitalization. The more common accidents, those involving falls, poisons, sharp objects, foreign bodies, being caught between objects, and hot substances or objects are described and discussed.[195]

### **Objective: 2. To assess the practice of mothers regarding prevention of accidents among toddlers.**

Based on the objectives of the study the findings of pre test practice score of mothers regarding prevention of accidents among toddler's shows that most of the mothers doing wrong practices for prevention of accidents among toddlers. The study shows that mothers in pre test were having a mean percentage score of 31.9% of practice regarding prevention of accidents among toddlers in overall aspects. Mother's pre test level of practice shows that all mothers are doing wrong practices for prevention of accidents among toddlers . Considering the aspects of prevention of accidents among toddlers they are having below average knowledge. Of practice.

A study was conducted on home accidents in Shiraz, Islamic Republic of Iran for a 3-year period (2000–2002) were collected data from health houses, health centre and hospitals involved in a home accident prevention program in Shiraz, Islamic Republic of Iran. A total accidents were registered, with a mortality rate of 1.3, RURAL than rural areas (66.3% versus 33.7%). Burns (66.5%), followed by injuries due to sharp objects (11.3%) were the most common causes. Accidents were more prevalent in children aged under 5 years.[198

**Objective: 3.To assess the effectiveness of structured teaching program regarding knowledge and practices of mothers on the prevention of accidents among toddlers.**

The findings of the study revealed a significant increase in the post test knowledge score after the administration structured teaching program. In pre test the mean percentage score is 31.9% and in post test the mean percentage score is 73.75%.The difference between pre test and post test knowledge score is 41.85 %. Mother's pre test knowledge regarding prevention of accidents among toddlers shows that 100% of the mothers were having inadequate knowledge and none of them have adequate knowledge. After the administration of structured teaching program the post test level of knowledge on preventive measures shows that 32.5% of mothers have adequate knowledge, 67.5% of mothers have moderately adequate knowledge and none have inadequate knowledge. This result is due to the effectiveness of structured teaching program.

**Objective: 4.To finds out the association between the selected demographic variables with knowledge and practice score of mothers regarding prevention of accidents among toddlers.**

The findings of the study reveals that out of several demographic variables educational status, source of information are significantly associated with the post test knowledge scores. Association with educational status (Chi-square =7.64, P= <0.05), association with source of information of patients (Chi-square =9.51, P= <0.05) is significantly associated with their post test scores.

## **8. HYPOTHESIS TESTING**

H1: The mean post test knowledge scores of mothers regarding prevention of accidents among toddlers will be significantly higher than the mean pre test knowledge scores.

It is revealed that there is significant difference between the pre test and post test knowledge score. Comparison was done using student's paired 't' test and the value is  $t = 26.67$ , which is significant. Therefore the research hypothesis H1 has accepted.

H2: There will be a significant association between the pre test and post test knowledge and selected demographic variables such as age of mothers, religion, types of family, occupation of mothers, education status of the mothers, family monthly income, sources of health information, age of toddlers, gender of toddler with children regarding prevention of accidents among toddlers.

It is revealed that there is significant association between the educational status of mothers (Chi-square =7.64, P< 0.05) and source of information (Chi-square =9.51, P<0.05).The association was calculated using Chi square test. Therefore the Research hypothesis H2 has been accepted.

Abd El-Rhaman, (1998) mentioned that (54.0%) of mothers in his sample were housewives and the home accidents rate was high among their children. According to housing condition Amine et al., (1998) and Ahmed, (1989) mentioned that living condition in rural areas attributed to environmental factors such as cooking over open fires lead to burns and scalds. Badly built houses and poor maintenance such as stairs without railings might cause falls. The present study revealed that nearly all homes had at least two environmental hazards.

## **9. SUMMARY, CONCLUSION, RECOMMENDATIONS**

This chapter has dealt with the major findings along with implications and recommendations. The study was conducted to assess the effectiveness of structured teaching program regarding knowledge and practice of mothers on prevention of accidents among toddlers.The research design adopted for this study was a pre experimental single group pretest post test design and the research approach adopted was an evaluative and educative approach. The sample consists of 320 mothers at Mashobra Shimla. H.P. The instrument used for the data collection was structured interview schedule.

## **10. RESULTS**

The results of the study show that regarding prevention of accidents among toddlers. The overall pre test mean score is 9.5 with a mean percentage of 31.67% and standard deviation of 2.6. The overall post test mean score is .22 with a mean percentage of 73.33% and a standard deviation of 2.6.The difference between the overall mean percentage of pre test and post test is 41.66%. So the results of the study show that the difference between the pre test and post test knowledge score of mothers regarding prevention of accidents among toddlers is statistically significant and the enhancement is due to the effectiveness of Structured Teaching program. There is a significant association between the posttest knowledge and selected demographic variable such as educational status of mothers and source of health information.

## **11. CONCLUSION**

The findings of the study support the need to conduct education and training program for mothers to enhance their knowledge and practice regarding prevention of accidents among toddlers. This study has proved that the mothers of toddlers have remarkable increase in knowledge due to the effectiveness of Structured Teaching Program. Thus the student researcher recommends further studies in these areas to improve the knowledge and practice of mothers regarding prevention of accidents among toddlers.

## 12. RECOMMENDATIONS

The present study can be conducted on a more extensive study on large sample is recommended for wider generation.

- A similar study can be conducted with large number of samples to generalize the findings.
- An experimental study can be conducted with control group for comparison.
- A similar comparative study can be conducted to identify the differences and similarity between rural and urban area regarding mothers knowledge and practice level on prevention of childhood accidents.
- A longitudinal study can be conducted by involving more number of samples.
- A Similar study can also be carried out for the care givers of toddlers .
- A similar study can be conducted in hospital setting.
- The teaching and demonstrating material can be videotaped and can be shown to mothers in MCH department and pediatric department in the hospital.
- Health classes for mothers in MCH about causes of home accidents, first aid and prevention.
- Health education programs for mothers about safe home environment.

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