

A Study to Assess the Effectiveness of Structured Teaching Program Regarding Knowledge and Practice of Mothers on Prevention of Accidents Among Toddlers in Selected Urban Community Area Bangalore, Karnataka, India

Prabha Kashyap¹

Assistant Professor, Sister Nivedita Govt. Nursing College, IGMC, Shimla, Himachal Pradesh, India¹

Abstract: Accidents remain a major health problem for children of all ages, in spite of attempts at prevention by industry, health workers, educators, and legislation. In order of decreasing frequency, serious pediatric accidents include moving-vehicle accidents, water-related accidents, burns, poisonings, and falls. Their cause, severity, and prevention will be considered, with future challenge. WHO: Shape healthy environments for children-the feature of life WHO Health Day -7 April 2003. One study that deals with the reported and observed practices of mothers of children 0 to 3 years old [n = 357] in relation to injury prevention. Prevention practices for falls, poisonings, burns, suffocation, electrocution, and drowning and car safety were studied following a developmental approach. At both ages unsafe behavior conducive to suffocation, scalds and car safety were reported in relatively higher frequency than for other causes of injury. A Study to assess the effectiveness of structured teaching program regarding knowledge and practice of mothers on prevention of accidents among toddlers in selected urban community area Bangalore. Assess the knowledge and practices of mothers regarding prevention of accidents among toddlers, find out the effectiveness of structured teaching program regarding knowledge and practice of mothers on prevention of accidents among toddlers, determine the association between the selected demographic variables with knowledge and practice score of mothers regarding prevention of accidents among toddlers. Evaluative approach and one group pre test post test pre experimental design was selected for the study. The study was conducted in Rupena Agrahara Area, Bommanahalli, in Bangalore. The population of the study was mothers of toddlers in selected urban community area at Bangalore. Content validity of the tool was obtained from seven experts and the reliability of the tool was $r=0.92$. A stratified random sampling technique was used to select 40 mothers of toddlers. A structured interview schedule was used to know the knowledge of mothers regarding prevention of accidents. The data obtained were analyzed and interpreted in terms of objectives and hypotheses of the study by using descriptive and inferential statistics in term of frequencies, percentage, mean, standard deviation and chi-square test. The study findings revealed that in the pre test score the mothers have less knowledge score in all aspects the mean percentage in the pre test score is 31.67% with S.D. 2.6. in the post test score the mothers gained knowledge with the mean percentage of 73.33% with S.D. 2.6. The study revealed that there was an enhancement of the knowledge score in the post test. This indicates that the structured teaching program is effective in enhancing the knowledge and practice of the mothers regarding prevention of accidents among toddlers. On the basis of findings, it is recommended that a similar study may be replicated issuing a large number of respondents. It is also recommended that the other methods of teaching with frequent reinforcement be implemented for improving the knowledge and practice of mothers regarding prevention of accidents among toddlers and well-educated mothers could be expected to reduce the mortality and morbidity among toddlers.

Keywords: Effectiveness, Structured Teaching Program, Knowledge, practice, prevention, accidents, toddlers.

I. INTRODUCTION

Accidents remain a major health problem for children of all ages, in spite of attempts at prevention by industry, health workers, educators, and legislation. In order of decreasing frequency, serious pediatric accidents include moving- vehicle accidents, water-related accidents, burns, poisonings, and falls. Their cause, severity, and prevention will be considered, with future challenge. WHO: Shape healthy environments for children-the feature of life WHO Health Day -7 April 2003. Children were the property of their parents. Their lives centered around parents' expectations of the benefit they could bring from employment, or in the case of aristocratic families, from the advantages of being squires to superior families

or of successful marriages. This absence of 'childhood' was mainly put forward by a Frenchman, Philippe Aries, in his book Centuries of Childhood.' A paper by Eleanor Gordon, which describes miracles worked by saints in the 12th, 13th, and 14th centuries, also gives a detailed account of the way children spent their lives and of parents' attitudes towards them.

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 urban community area at Bangalore

OBJECTIVES OF THE STUDY

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

II. RESEARCH METHODOLOGY

In the present study the student investigator wished to assess the effectiveness of structure teaching program regarding knowledge and practice of mothers on prevention of accidents among toddlers in selected urban community areas at Bangalore hence the research approach adopted for this study was an evaluative approach. Evaluative approach helps to explain the effect of independent variable on the dependent variable. 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. The variables for the present study are independent and dependent variables. The study was conducted at Rupena Agrahara area of Bommanahalli.

The target population for the study was mothers of toddlers. In order to assess the knowledge of mothers regarding childhood home accidents a simple random sampling technique was used. Forty Mothers who met in the inclusion criteria were selected by using simple random sampling technique. The investigator developed a structured questionnaire to collect the demographic data to assess the knowledge of mothers regarding prevention of accidents. The following steps were carried out for preparing the tool: Review of literature, Based on expert opinion, Investigators personal experience. Structured interview schedule consists of three sections namely section-A **Description of demographic characteristics** section-B: **Knowledge of mothers regarding prevention of accidents.** Section-C **Practice of mothers regarding prevention of accidents:** and section-D: **Structure teaching program (Lesson plan and Flash cards).** The structured questionnaire was prepared and given to experts for content validity. In order to establish the reliability of the tool, split half method was used. The tool was found reliable ($r=0.8$) for data collection. The pilot study was conducted on the month of June 2011 to find out the reliability and validity to rest the feasibility and acceptability of the tool. Formal permission was obtained from the concerned authority to conduct the study. The demographic variables were described descriptively 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. Questionnaire was prepared to find out association between the mean pretest knowledge and selected demographic variables. The level of significance was set at 0.05. Assurance was given to the all subjects that the anonymity of each individual would be maintained.

III. RESULTS

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.

SECTION A: DEMOGRAPHIC DATA

Table 1: Distribution of the subjects according to socio-demographic Variables: N=40

| S. No | Demographic variables | No | % |
|-------|--------------------------|----|------|
| 1 | Age of the mother | | |
| | a. <20 years | 6 | 15 |
| | b. 21--30 years | 13 | 32.5 |
| | c. 31--40 years | 15 | 37.5 |
| | d. 41 and Above | 6 | 15 |

| | | | |
|----------|-------------------------------------|----|------|
| 2 | Religion | | |
| | a. Hindu | 28 | 70 |
| | b. Muslim | 2 | 5 |
| | c. Christian | 10 | 25 |
| | d. Other (if any) | 0 | 0 |
| 3 | Type of family | | |
| | a. Nuclear family | 28 | 70 |
| | b. Joint family | 12 | 30 |
| | c. Extended family | 0 | 0 |
| 4 | Occupation of mother | | |
| | a. House wife | 14 | 35 |
| | b. Laborer | 16 | 40 |
| | c. Employee | 9 | 22.5 |
| | d. Business | 1 | 2.5 |
| 5 | Educational Status | | |
| | a. Illiterate | 25 | 62.5 |
| | b. Primary School | 2 | 5 |
| | c. High School | 13 | 32.5 |
| | d. PUC and Above | 0 | 0 |
| 6 | Family monthly income | | |
| | a. Below Rs. 1000 | 21 | 52.5 |
| | b. Rs. 1000 --3000 | 16 | 40 |
| | c. Rs. 3000--5000 | 3 | 7.5 |
| | d. Rs. 5000 and above | 0 | 0 |
| 7 | Source of health information | | |
| | a. Printed media | 24 | 60 |
| | b. Electronic media | 6 | 15 |
| | c. Relatives | 7 | 17.5 |
| | d. Health Personnel | 3 | 7.5 |
| 8 | Age of toddler | | |
| | a. 1 year | 4 | 10 |
| | b. 2 years | 13 | 32.5 |
| | c. 3 years | 23 | 57.5 |
| 9 | Gender of toddlers | | |
| | a. Male | 26 | 65 |
| | b. Female | 14 | 35 |

The above 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 family, occupation of mothers, education status, family income, source of health information, age of toddler, gender of toddler and time spent with toddlers.

With regard to age, maximum number of 6 (15%) belongs to <20 age group, 13(32.5%) belongs to 26-30 age groups, 15 (37.5%) belongs to 31-40 age group. With regard to their religion 28(70%) were Hindu, 2(5%) were Muslim, 10(25%) were Christian. With regard to the type of family 28(70%) were nuclear families, 12(30%) were joint families. With regard to their occupation 14(35%) were house wife, 16(40%) were labourer, 9(22.5%) were employees and 1(2.5%) were in business women. With regard to educational status 25(62.5%) were illiterate, 2(5%) were completed primary education, 13(32.5%) were finished secondary education. With regard to their monthly income 21(52.5%) were earning less than 1000 rupees per month, 16(40%) earning 1000-3000 and 3(7.5%) were getting 3000-5000/monthly. With regard to source of health information 24(60%) were getting information by print media, 6(15%) from electronic media, 7(17.5%) from relatives and very less 3(7.5%) from health personnel. With regard to age of the toddler 4(10%) children were one year of age group, 13(32.5%) children were in two years of age, 23(37.5%) children were in three year of age. With regard to the gender of the toddler 26(65%) were male child, 14(35%) were female child.

SECTION: B: Assess the pretest knowledge of mothers regarding prevention of accidents.

Table 2: Shows pretest knowledge of mothers regarding prevention of accidents **n=40**

| Level of knowledge | No | % |
|--------------------|----|----|
| Inadequate (<50%) | 38 | 95 |
| Moderate (50--75%) | 2 | 5 |
| Adequate (>75%) | 0 | 0 |

Above table explain that 95% of the mothers have inadequate knowledge and 5% of the mothers show moderate knowledge regarding prevention of accidents among toddlers pre-test phase.

Table 3: Domain wise Pre-test knowledge of mothers regarding prevention of accidents. N=40

| Domain | Max Statement | Max Score | Range | Mean | SD | Mean % |
|-------------------|---------------|-----------|-------|------|-----|--------|
| Pretest Knowledge | 30 | 30 | 3--15 | 9.5 | 2.6 | 31.67 |

Above table shows domain wise pre-test knowledge level of mothers. In which mean %age was 31.67% with SD of 2.6 of the mothers shows moderate knowledge regarding prevention of accidents among toddlers.

Table 4: Domain wise Pre-test mean knowledge scores of subjects regarding prevention of accidents among toddlers. n=40

| 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 |

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.

Section B: Assess the post-test knowledge of mothers regarding prevention of accidents.

Table 5: Explain post-test knowledge level of subjects regarding prevention of accidents. **n=40**

| Level of knowledge | No | % |
|--------------------|----|------|
| Inadequate (<50%) | 0 | 0 |
| Moderate (50--75%) | 27 | 67.5 |
| Adequate (>75%) | 13 | 32.5 |

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.

Table 6: Aspect wise Posttest knowledge level of mothers regarding first aid measures for common child hood home accidents. n=40

| 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 |

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.

Table 7: Assess the practice of mothers regarding prevention of accidents among toddlers. n=40

| Level of practice | Score | No | % |
|-------------------|---------|----|-----|
| Poor | <50% | 40 | 100 |
| Moderate | 50--75% | 0 | 0 |
| Good | > 75% | 0 | 0 |

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

Table 8: Assess the pre-test practice level of mothers regarding prevention of accidents n=40

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

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

SECTION D: Assess the post-test practice of mothers regarding prevention of accidents among toddlers.

Table 9: Assess the post-test practice of mothers regarding prevention of accidents among toddlers. n=40

| Level of practice | Score | No | % |
|-------------------|---------|----|------|
| Poor | <50% | 0 | 0 |
| Moderate | 50--75% | 25 | 62.5 |
| Good | > 75% | 15 | 37.5 |

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 C: Find out the effectiveness of structured teaching program regarding Knowledge of mothers on the prevention of accidents among toddlers.

Table 10: Post-test knowledge level of mothers regarding prevention of accidents among toddlers. n=40

| Level of knowledge | Pre test | | Post test | |
|--------------------|----------|----|-----------|------|
| | No | % | No | % |
| Inadequate (<50%) | 38 | 95 | 0 | 0 |
| Moderate (50--75%) | 2 | 5 | 27 | 67.5 |
| Adequate (>75%) | 0 | 0 | 13 | 32.5 |

Table shows that majority of the mothers 32.5% have adequate knowledge and 67.5% of the mothers moderate knowledge after structure teaching program.

Table 12: Over all pretest and posttest mean knowledge scores of mothers regarding prevention of accidents among toddlers. n=40

| 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 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**

Table 13: Find out the domain wise effectiveness of structured teaching program regarding Knowledge of mothers on the prevention of accidents among toddlers. n=40

| 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)

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.

Find out the effectiveness of structure teaching program regarding practice of mothers on prevention of accidents.

Table 14: Shows the effectiveness of structure teaching program regarding practice of mothers on prevention of accidents. n=40

| Level of Practice | Pre test | | Post test | |
|--------------------|----------|-----|-----------|------|
| | No | % | No | % |
| Poor (<50%) | 40 | 100 | 0 | 0 |
| Moderate (50--75%) | 0 | 0 | 25 | 62.5 |
| Good (>75%) | 0 | 0 | 15 | 37.5 |

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.

Table 15: Shows overall mean knowledge score of mothers before and after Structured Teaching Program. n=40

| 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)

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 (H₁) is accepted and the null hypothesis is rejected. So it indicates that structure teaching program was effective.

SECTION: D: Associate post-test knowledge with their selected demographic variables.

Table-16: To associate post-test knowledge with their selected demographic variables. n=40

| S.No | Demographic variables | No | % | Level of knowledge | | | | Chi square |
|------|------------------------------|----|-----|--------------------|--------|---------------|--------|---------------------|
| | | | | < Median (21) | | > Median (19) | | |
| | | | | No | % | No | % | |
| 1 | Age of the mother | | | | | | | |
| | a. <20 years | 6 | 15 | 5 | 83.33 | 1 | 16.67 | 1.08 df 3 N.S |
| | b. 21--30 years | 13 | 33 | 9 | 69.23 | 4 | 30.77 | |
| | c. 31--40 years | 15 | 38 | 5 | 33.33 | 10 | 66.67 | |
| | d. 41 and Above | 6 | 15 | 2 | 33.33 | 4 | 66.67 | |
| 2 | Religion | | | | | | | |
| | a. Hindu | 28 | 70 | 12 | 42.86 | 16 | 57.14 | 1.93 df 2 N.S |
| | b. Muslim | 2 | 5 | 2 | 100.00 | 0 | 0.00 | |
| | c. Christian | 10 | 25 | 7 | 70.00 | 3 | 30.00 | |
| | d. Other (if any) | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 3 | Type of family | | | | | | | |
| | a. Nuclear family | 28 | 70 | 17 | 60.71 | 11 | 39.29 | 1.99 df 2 N.S |
| | b. Joint family | 12 | 30 | 4 | 33.33 | 8 | 66.67 | |
| | c. Extended family | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 4 | Occupation of mother | | | | | | | |
| | a. House wife | 14 | 35 | 10 | 71.43 | 4 | 28.57 | 2.12 df 3 N.S |
| | b. Laborer | 16 | 40 | 8 | 50.00 | 8 | 50.00 | |
| | c. Employee | 9 | 23 | 3 | 33.33 | 6 | 66.67 | |
| | d. Business | 1 | 2.5 | 0 | 0.00 | 1 | 100.00 | |
| 5 | Educational Status | | | | | | | |
| | a. Illiterate | 25 | 63 | 18 | 72.00 | 7 | 28.00 | 7.64 df 2 S* |
| | b. Primary School | 2 | 5 | 2 | 100.00 | 0 | 0.00 | |
| | c. High School | 13 | 33 | 1 | 7.69 | 12 | 92.31 | |
| | d. PUC and Above | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 6 | Family monthly income | | | | | | | |
| | a. Below Rs. 1000 | 21 | 53 | 14 | 66.67 | 7 | 33.33 | 1.69 df 2 N.S |
| | b. Rs. 1000 --3000 | 16 | 40 | 6 | 37.50 | 10 | 62.50 | |
| | c. Rs. 3000--5000 | 3 | 7.5 | 1 | 33.33 | 2 | 66.67 | |
| | d. Rs. 5000 and above | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 7 | Source of health information | | | | | | | |
| | a. Printed media | 24 | 60 | 15 | 62.50 | 9 | 37.50 | 1.21 df 3 N.S |
| | b. Electronic media | 6 | 15 | 2 | 33.33 | 4 | 66.67 | |
| | c. Relatives | 7 | 18 | 3 | 42.86 | 4 | 57.14 | |
| | d. Health Personnel | 3 | 7.5 | 1 | 33.33 | 2 | 66.67 | |

| | | | | | | | | |
|---|----------------|----|----|----|-------|----|-------|----------|
| 8 | Age of toddler | | | | | | | |
| | a. 1 year | 4 | 10 | 3 | 75.00 | 1 | 25.00 | 3.23 |
| | b. 2 years | 13 | 33 | 10 | 76.92 | 3 | 23.08 | df 2 |
| | c. 3 years | 23 | 58 | 8 | 34.78 | 15 | 65.22 | N.S |
| 9 | Gender | | | | | | | |
| | a. Male | 26 | 65 | 17 | 65.38 | 9 | 34.62 | 2.34 |
| | b. Female | 14 | 35 | 4 | 28.57 | 10 | 71.43 | df 1 N.S |

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

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 post-test level of knowledge and selected demographic variables such as level of education. Since the obtained value is more than the table value at 0.05 level of significance. So the null hypothesis is rejected and the research hypothesis is accepted. There was not a significant association between post-test level of knowledge and selected demographic variables such as age of family, religion, type of family, occupation of mother, family income, source of health information, and age and gender of toddlers. The obtained value is less than the table value at P<0.05 level of significance. So the research hypothesis is rejected and the null hypothesis is accepted.
Associate post-test Practice with their selected demographic variables

Table- 16: To associate post-test Practice with their selected demographic variables. n=40

| S. No | Demographic variables | No | % | Level of Practice | | | | Chi square |
|-------|-----------------------|----|-----|-------------------|--------|--------------|--------|---------------------|
| | | | | < Median (34) | | > Median (6) | | |
| | | | | No | % | No | % | |
| 1 | Age of the mother | | | | | | | |
| | a. <20 years | 6 | 15 | 5 | 83.33 | 1 | 16.67 | 2.17 df 3 N.S |
| | b. 21--30 years | 13 | 33 | 12 | 92.31 | 1 | 7.69 | |
| | c. 31--40 years | 15 | 38 | 13 | 86.67 | 2 | 13.33 | |
| | d. 41 and Above | 6 | 15 | 4 | 66.67 | 2 | 33.33 | |
| 2 | Religion | | | | | | | |
| | a. Hindu | 28 | 70 | 26 | 92.86 | 2 | 7.14 | 6.62 df 2 S* |
| | b. Muslim | 2 | 5 | 2 | 100.00 | 0 | 0.00 | |
| | c. Christian | 10 | 25 | 6 | 60.00 | 4 | 40.00 | |
| | d. Other (if any) | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 3 | Type of family | | | | | | | |
| | a. Nuclear family | 28 | 70 | 25 | 89.29 | 3 | 10.71 | 1.34 df 2 N.S |
| | b. Joint family | 12 | 30 | 9 | 75.00 | 3 | 25.00 | |
| | c. Extended family | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 4 | Occupation of mother | | | | | | | |
| | a. House wife | 14 | 35 | 13 | 92.86 | 1 | 7.14 | 6.79 df 3 N.S |
| | b. Laborer | 16 | 40 | 14 | 87.50 | 2 | 12.50 | |
| | c. Employee | 9 | 23 | 7 | 77.78 | 2 | 22.22 | |
| | d. Business | 1 | 2.5 | 0 | 0.00 | 1 | 100.00 | |
| 5 | Educational Status | | | | | | | |
| | a. Illiterate | 25 | 63 | 21 | 84.00 | 4 | 16.00 | 0.37 df 2 S* |
| | b. Primary School | 2 | 5 | 2 | 100.00 | 0 | 0.00 | |
| | c. High School | 13 | 33 | 11 | 84.62 | 2 | 15.38 | |
| | d. PUC and Above | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |
| 6 | Family monthly income | | | | | | | |
| | a. Below Rs. 1000 | 21 | 53 | 19 | 90.48 | 2 | 9.52 | 1.46 df 2 N.S |
| | b. Rs. 1000 --3000 | 16 | 40 | 13 | 81.25 | 3 | 18.75 | |
| | c. Rs. 3000--5000 | 3 | 7.5 | 2 | 66.67 | 1 | 33.33 | |
| | d. Rs. 5000 and above | 0 | 0 | 0 | 0.00 | 0 | 0.00 | |

| | | | | | | | | |
|---|------------------------------|----|-----|----|-------|---|-------|---------------------|
| 7 | Source of health information | | | | | | | |
| | a. Printed media | 24 | 60 | 23 | 95.83 | 1 | 4.17 | 9.51 df 3 S* |
| | b. Electronic media | 6 | 15 | 5 | 83.33 | 1 | 16.67 | |
| | c. Relatives | 7 | 18 | 5 | 71.43 | 2 | 28.57 | |
| | d. Health Personnel | 3 | 7.5 | 1 | 33.33 | 2 | 66.67 | |
| 8 | Age of toddler | | | | | | | |
| | a. 1 year | 4 | 10 | 3 | 75.00 | 1 | 25.00 | 0.98 df 2 N.S |
| | b. 2 years | 13 | 33 | 12 | 92.31 | 1 | 7.69 | |
| | c. 3 years | 23 | 58 | 19 | 82.61 | 4 | 17.39 | |
| 9 | Gender | | | | | | | |
| | a. Male | 26 | 65 | 23 | 88.46 | 3 | 11.54 | 0.69 df 1 N.S |
| | b. Female | 14 | 35 | 11 | 78.57 | 3 | 21.43 | |

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

The analysis of association of selected demographic variables with posttest level of knowledge using chi-square test revealed that there was no significant association between the post-test level of knowledge and selected demographic variables such as age of the mothers, type of family, occupation of mother, monthly income, age of the toddler and gender of the 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 such as religion, educational status and source of health information. 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.

IV. DISCUSSION

This chapter discusses the main findings of the research study and reviews that are in relation to the findings from the results of the present study. For this study the data was obtained from mothers regarding prevention of accidents among toddlers at Rupena Agrahara urban community area Bangalore. In order to achieve the objectives of the study a pre experimental (single group pre-test post test) design was adopted and 40 mothers of toddlers by using purposive random sampling, fulfilling the inclusion and exclusion criteria. The subjects were evaluated using structured questionnaire for socio demographic data, knowledge and practice questionnaire on prevention of accidents among toddlers. 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.

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 they were able to answer to some extent. The study shows that mothers in pre-test were having a mean percentage score of 31.9% 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.

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.

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, $P < 0.05$) are significantly associated with their post-test scores.

V. CONCLUSION

Teaching is a high versatile tool that can be used in all the four modes of nursing interventions; to prevent, to promote, maintain and modified a wide variety of behavior in a receptive individual or group. In present study preventive aspect was used to attain the goal. The study was conducted at Rupana Agrahana urban community Bommanahalli Bangalore. Non-probability convenient sampling technique was used to select the samples. The data was collected from 40 subjects with the help of structured questionnaire before and after administration of structured teaching program. The findings of the study revealed that there was a marked increase in overall knowledge level scores (73.75) of post-test than the pre-test (31.9). The overall improvement in the mean score was with the paired 't' value 26.67** which was highly significant at $p < 0.001$. Thus, the structured teaching program was effective in improving the knowledge of the mothers.

REFERENCES

1. Grog Harlem Brundtland. World Health Day Theme: 2003. The Nursing Journal of India 2003 Aril; 94 (4): 74.
2. Mackie DN. Inquiry into the circumstances of the death of Marian Caitlin McLaughlin (determination 29 May). Allow: Serfdom of Daysides Central and Fife. 2009.
3. Merchant, J.A.; Stromquest, A.M.; Kelly, K.M.; et al. Chronic disease and injury in an agricultural county: The Keokuk County Rural Health Cohort Study. *Journal of Rural Health* 18(4):521-535, 2002.
4. Bartlett S. The problem of children's injuries in low-income countries: a review. *Health policy* 2002;17:1-13.
5. The Royal Society for the prevention of Accidents. Information Sheet Number EN 11176 playground equipment standard. <http://www.rosa.com/laysafety/> (accessed 3 Oct 2006).
6. World Health Organization, *Chapter 5: Abuse of the Elderly*, in *World Report on Violence and Health*. 2002, World Health Organization: Geneva: Switzerland, 125-145.
7. Shenassa ED, Stubbendick A, Brown MJ. Social disparities in housing and related pediatric injury. *Res react* 2004;94: 633-9.
8. Selbst SM, Baker MD, Shames M. Bunk bed injuries. *Am J Disabilities Child* 1990; 144:721-3.
9. Arks S, Cho BM, Oh SM. Head injuries from falls in preschool children. *Yenisei Med J* 2004;45:229-32.
10. Taratino CA, Dowd MD, Murdock TC. Short vertical falls in infants. *Editor Emerge Care* 1999;15: 5-8.
11. Williams RA. Injuries in infants and small children resulting from witnessed and corroborated free falls. *J Trauma* 1991;31: 1350-2.
12. Fazen LE, Felizberto I. Baby walker injuries. *Pediatrics* 1982; 70: 106-9.
13. Arrington MD. Head injury and the use of baby walkers: a continuing problem. *Ann Emerge Med* 1991;20: 652-4.
14. Royal Society for the prevention of Accident. Accidents to children. www.rosa.com/home_safety/advice/child/accidents.htm (access 12 Jan 2010).
15. Ridenour MV. Ages of young children who fall down stairs. *erect Motor Skills* 1999;88: 669-75.
16. Kojar B, Wickizer T. How safe are day care centers? Day care versus home injuries among children in Norway. *pediatrics* 1996; 97: 43-7.
17. Rivara F, DiGuisei C, Thomson RS, et al. Risk of injury to children less than 5 years of age in day care versus home care settings. *pediatrics* 1989; 84: 1011-16.
18. Briss A, Sacks JJ et al. Injuries from falls on playgrounds. Effects of day care centre regulation & enforcement. *Arch mediator Adolescent Med* 1995;149:906-11.
19. LaForest S, Robitaille Y, Dorval D, et al. Severity of fall injuries on sand or grass in laygrounds. *J Eidemiol Community Health* 2000;54: 475-7.
20. LaForest S, Robitaille, Lesage D, et al. Surface characteristics, equipment height, and the occurrence and severity of playground injuries. *Inj rev* 2001;7 :35-40. 20 Sacks JJ, Holt KW, Holmgren , et al. playground hazards in Atlanta child care centers. *Am J public Health* 1990;80: 986-8.