A study to evaluate the effectiveness of structured teaching program (STP) on knowledge of mother regarding prevention of home accidents among toddlers in rural community areas at Baraut in Uttar Pradesh

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Abstract
Under five year olds are often referred to as youngsters under the age of five. Children under the age of five make up 22% of the general population. In comparison to all deaths, the mortality rate for children under the age of five is significant. The danger of numerous health issues is higher in this age range. One of the most significant health issues is home accidents among children under the age of five. Accidents were an unforeseen and unwelcome event, especially when they caused harm or damage. According to the WHO, unintentional accidents are the main cause of death for kids under the age of five. Unintentional injuries include those caused by mishaps including falls, burns, poisoning, drowning, and aspirating foreign objects. This raises concerns about the morbidity and mortality of youngsters. Considering that women are the children's main caregivers. Understanding a mother's beliefs, attitudes, and practices regarding kid safety from accidents at home is essential. According to research, mothers' ignorance of the factors that contribute to home accidents increases their frequency. Investigators noted that preventing home accidents in children under the age of five by educating the mother on the safety measures the investigator had in place to prevent mishaps at home, according to a STP.

Keywords: Children, youngsters, accidents, women, unintentional injuries

Introduction
If you want your children to be intelligent, read then fairy tales. If you want to be more intelligent, read more fairy tales. The children of today are the adults of tomorrow. They deserve to inherit a safer. Fairer and healthier world. There is no task more important than safeguarding their environment. A child’s world centre around the home, school and the community. Every child has right to grow up in a healthy environment. Accidental injuries to infants and young children are often serious but are largely preventable with appropriate information and safe practice. In 2004, a study was conducted on mother’s home safety practices for preventing six common types of childhood injuries. To identify determinants of mother home safety injuries to children (burn, poisoning, drowning, cuts suffocation choking and falls). Home interviews were conducted on home safety practice. The results revealed unique determinant of mother home safety practices to prevent these six common types of childhood injuries.

Objective
To assess the knowledge about the prevention of home accidents among mothers of toddler children. To evaluate the effectiveness of structured teaching program by comparing the Pretest and post-test knowledge Score. To find out the association between knowledge score and selected demographic variables.

Hypothesis
Post-test knowledge scores will be significantly higher than the pre-test knowledge scores of the mothers of toddler children.

Assumptions
This study assumes that the mothers of toddler children possess inadequate knowledge regarding prevention of home accidents. Appropriate education will help to increase the knowledge of the mothers regarding prevention of home accidents.

Background of the study
In today’s world, in developed as well as developing countries, danger prevails not only on the roads but it also exists in the home and playgrounds. Every year thousands of children die or permanently disabled as a result of accidental injuries. In many developing countries, injuries are one of the major causes of death in children in the age group of 1-5 years. World Health Organization defines accident as an unexpected and unintended event causing physical and mental injuries. Children being less aware of danger are one of the most vulnerable groups, which can be explicated with the ongoing development of neuromotoric, cognitive, physical, social, psychological and sensory skills. Children’s are prone to get various minor and major health problems. About ¾th of the children are considered as unhealthily and surviving with impairment of physical and
intellectual functions due to poor health status. Early detection and anticipation of the problem many prevent impairment. The future development of our children depends on their enjoying good health today. A house is an exciting place for infants and small children, who love to explore but aren’t aware of the potential dangers. Life can’t be risk-free, but most household accidents can be prevented by utilizing a household safety list. The incidence of accidental injuries is increasing in India, especially home accidents in children. Hence the knowledge of mothers is essential for undertaking measures to prevent them.

Need of the study
Worldwide surveys have shown about the pediatric emergency varies from country to country. The 5 million children died from injuries with a global mortality rate of 83.7 per 1, 00,000 per annum. A total of 2, 83,000 death was reported due to falls. In the year 2004 an estimated 3, 76,000 children drowned approximately 97% of drowning deaths occurred in low and middle-income countries. In India account for an estimated of 12, 75,000 children are grievously injured. A total of 22,000 deaths were reported due to drowning. In Karnataka at least 30,000 children are dying annually due to accidents, drowning and poisoning. In developing countries, pediatric emergency are shown to be as numerous as in developed countries. WHO report says that in the age group of 1-4 years, the second year is the period when the young child runs the highest risk of dying. In developing countries, death in the second year of life commonly accounts for 50% of all deaths between 1-4 years of age 9. Domestic Accidents represent a major epidemic of non-communicable disease throughout the world and is a leading cause for death and disability among children. Every year 750,000 children die from injury. Another 400 million are seriously hurt. The most common injuries are falls, burns, drowning and road accidents and such Injuries commonly occurred in a child’s own home. In the European region, 3-4 deaths out of 10 occurred during the period between the age of 0 and 4 years. In addition, injuries kill over 20,000 children aged 1-14 every year in the world’s wealthiest Nations will die from injuries. The incidence of non-fatal firearm-related injuries among children and adolescents treated in US, the estimated annual rates of injuries (per 100000) were 2.0% (children 0-4 years old). Most of the children that fell were. Between the ages of 0 and 4, all were sent directly to the ICU. 4% of children died. Most window falls occur when children are unsupervised. The distribution of injuries was as follows: falls (50.4%), burns (22.8%). Of the 177 falls 104 (58.8%) involved stairs, 7 (4%) involved baby walkers, 14 (7.9%) where from changing tables and 1(6%) was through open window, the cause was not specified for 51 (28.8%) Of the 80 burn injuries 8 where due to exposure to hot tap water (10%) 27 to hot liquids or solids (33.7%) 22 to hot surfaces (27.5%) and 2 to dwelling fires (2.5%) the cause was not specified for 21 (26.3%). The reason leading to the home injuries are included the house condition such as the house floor is too smooth, unsafe balcony, untidy objects in houses, electric equipment, hot or burn objects and other issues like chemicals, spoiled food, well or water container without covers, animals specially dogs without muzzles, sharp objects etc. some factors like a number of children of the family or family economic conditions related to an increasing rate of home injury.

Inclusion and Exclusion criteria
Mothers of toddler children those who are living in selected rural community areas at Baruat. Those who willing to participate in the study. Those who available at the time of data collection. Mother who can write Hindi and English. Exclusion criteria: Who are not co-operative? Who are not available during the study? Who are suffering with any others from of disease? Delimitation of study.-The study is limited only to mothers of toddler children. Mother available at the period of study only. Measurements of scores for knowledge once before and after structured teaching programme only. The study is limited only to mothers of toddler children. Mothers available at the period of study only. Measurements of scores for knowledge once before and after structured teaching programme only.

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Conceptual framework
The conceptual framework for this study was derived from “J. W. Kenny’s Open System Model (1999)” the system transform the input in the process known as output.

Review of literature
Hence the review of literature done behind the study is organized under the following heading.
1. Studies on prevalence and cause of accidents in children.
2. Studies on domestic accidents among children.

Studies on prevalence and cause of accidents in children. Vipul P. Chaudhari., Ratan K.,Srivastava., Mohua Moitra., Vikas K. Desai. (2009) [21] conducted a cross-sectional study on risk of domestic accidents among under five children. The information was collected using interview technique by house-to-house survey. A sample size of 600 families, 300 households from urban slum and 300 households from middle-income group were surveyed. The information was collected using interview technique. They found that nearly two third of the boys (64.1%) from MIG area were at risk of electric appliances within reach in their homes as compared to 23.9% in urban slum area. In the same way girls (54.7%) of the MIG area were higher at risk. The study was conducted to assess the effectiveness of STP on vaccine-preventable disease among mothers of under five children. The overall pretest knowledge score found to be 58.8% with SD value 12.1 among the respondents. The findings indicate that the overall post-test means knowledge score found to be 84.2% and SD value 5.9 among the respondents. It reveals that eh mean pretest knowledge scores ranged between 44 to 60% and the post-test scores ranged between 64 to 94% on meaning aspect which shows considerable enhancement in knowledge in the statement. Studies on domestic accidents among children. Maria Loreto Mateos Baruqu, Eva Maria
Vian Gonzalez., Milagros Gil Costa., Jose Eugenio Lozano Alon., Elena Santamaria Rodrigo., Belen Herrero Cembellin (2011) conducted a study on epidemiological characteristics and types of domestic and leisure accidents. They found that the annual cumulative incidence was 2651 cases/100000 inhabitants, their being slightly higher percentage of men (50.4%). The ≤ 15 and ≥ 65 years’ age groups had more accidents. The time of day of 49.2% of the accidents was during the morning and 71.7% were on a working day. The majority (57.1%) took place in the home, 16.8% in the street, and 7.3% in schools. The study concluded that the most common accidents types were falls to the same level (40.4%) and use of cutting and sharp objects (22.7%). The study concluded that most accidents took place within the home, on a working day and by falls. The most affected were the ≤ 15 and ≥ 65 years’ old age groups. Studies on drowning among children Shields B.J., Pollack Nelson C., Smith G.A (2011) conducted a retrospective analysis of fatal and nonfatal submersion events involving children younger than 12 years in portable pools. Injury and fatality data compiled by the US Consumer Product Safety Commission from 2001 through 2009 was used. There were 209 fatal and 35 nonfatal submersion cases reported to the commission from 2001 through 2009. The majority (94%) involved children younger than 5 years, 56% involved boys, 73% occurred in the child's own yard, and 81% occurred during the summer months. The number of submersion events increased rapidly from 2001 to 2005 and then leveled off from 2005 to 2009. The use of portable pools in residential settings poses a significant risk of submersion-related morbidity and mortality to children, especially in the <5-year-old age group. No single strategy will prevent all submersion deaths and injuries; therefore, layers of protection are recommended.

Methodology

The research methodology includes the strategies to be used to collect and analyze the data to accomplish the research objectives. It has crucial implications for the validity and credibility of the study findings. The methodology of research indicates the general pattern for organizing the procedure of gathering valid and reliable data for an investigation. The present chapter deals with a brief description of methodology adopted for the study. This chapter includes research approach, research design, variables under the study, the setting, the population, the sample and sampling technique, development and description of tools, data collection procedure, description of the treatment, pilot study and the plan for the data analyses for the present study.

Research design

The term research design refers to the overall plan for organizing a scientific investigation. It is concerned with overall framework for conducting the study. Pilot and Beck (2011) state that a “researcher’s overall plan for obtaining answers to the research questions or for testing the research hypothesis is referred to as the research design”. Sharma K. Suresh (2012) explains that in the evaluated design the researcher introduces a base measure before the program is put into effect, to be followed by an after measure at the conclusion of the program. Keeping in view, the objective of the study is that the investigator adopted quasi-experimental design. The design used in this study was quasi experiment with one group pre-test and post-test design. It is represented as \([O_1 \times O_2] O_1\)- pretest to assess the knowledge regarding home accident among mothers of toddler. X - Structured teaching programme on child safety measures O2- Post-test to assess the knowledge regarding home accident among mothers of toddler.

Sample size and sampling technique

For the present study the sample are mothers of toddler children. Sample sizes are 40 mothers. Sample technique. For the present study, purposive sampling technique is adopted to select mothers who are having toddler children.

Data collection tools and techniques

The most important and crucial aspect of any investigation is the collection of appropriate information, which provides necessary data for the study. According to Polit and Hungler (1999) [20], “The most respected method of securing survey information is through personal interview, the method I which interviewers meet with individual face to face and secure information form them”. Based on the conceptual framework and objectives of the study a structured questionnaires schedule is developed to obtain data form the mothers who are having toddler children.
Findings Related to Frequencies and Percentage of Demographic Characteristics This section describes the demographic characteristics of the sample subjects under study. The sample consisted of 40 toddler mothers. The data obtained described the characteristics pertaining to their age, literacy status, religion, monthly income, type of family, mother’s occupation, number of children. Majority of samples belongs to age group 26-30 years 67.50% (27) and nobody belong to age group 36-above are 0%. The majority of the samples 57.50% (23) had Uneducated, 5% (02) were post-graduate. Majority of mothers were 87.50% (35) Hindu, 5% (12.50) were Muslim. Majority 45% (18) of samples were having income between Rs 10,000-15,000, 15,001-20,000 were 30% (12) and 20,001-25,000 were 15% (06), 25,001-Above were 10% (04). Majority of mothers had 55% (22) lived in Joint family and 45% (18) had lived in nuclear family. Maximum number of Mother’s Occupation 45% (18) were found to be working as house wife, 27.50% (11) were working as labor worker, 22.50% (09) were working Private job and only 5% (2) were working in govt. job. Majority 37.50% (15) of mothers having 3 children, 27.50% (11) were having 4 or more children, 20% (8) were having 2 children, 15% (6) were having 1 child. Findings related to evaluate the effectiveness of structured teaching programme by comparing the pretest and post-test knowledge score. The data presented in table frequency and percentage distribution of samples according to their level of knowledge.

Table 2: Frequency and percentage distribution of samples according to their level of knowledge.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Score</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Very good</td>
<td>15-20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>10-14</td>
<td>23</td>
<td>57.50%</td>
</tr>
<tr>
<td>Average</td>
<td>5-9</td>
<td>17</td>
<td>42.50%</td>
</tr>
<tr>
<td>Poor</td>
<td>0-4</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In pretest 57.50% of samples are good and in the post-test 77.50% got very good scores. The mean of post-test score (15.22) was higher than that of the mean of the pre-test score (9.95). The computed ‘t’ value was (11.212) higher than the table value at 0.05 level of significance so the research hypothesis was accepted.

Association between post-test knowledge score and demographic variables of mother
This Section describes the findings Of Chi-square was used to describe the association between knowledge score of the mother with demographically data. There is no significant association between knowledge score of mother and selected demographic variable such as age, literacy status, religion, monthly income, mother’s occupation, number of children at 0.05 level of significance.

Result
Findings Related to Frequencies and Percentage of Demographic Characteristics This section describes the demographic characteristics of the sample subjects under study. The sample consisted of 40 mother. The data obtained described the characteristics pertaining to their age, literacy status, religion, monthly income, type of family, mother’s occupation and number of children. Majority of samples belongs to age group 26-30 years 67.50% (27) and nobody belong to age group 36-above are 0%. The majority of the samples 57.50% (23) had Uneducated, 5% (02) were post-graduate. Majority of mother were 87.50% (35) Hindu, 5%(12.50) were Muslim Majority 45% (18) of samples were having income between Rs 10,000-15,000, 15,001-20,000 were 30% (12) and 20,001-25,000 were 15% (06), 25,001-Above were 10% (04). Majority of mothers had 55% (22) lived in Joint family and 45% (18) had lived in nuclear family. Maximum number of Mother’s Occupation 45% (18) were found to be working as house wife, 27.50% (11) were working as labor worker, 22.50% (09) were working Private job and only 5% (2) were working in govt. job. Majority 37.50% (15) of mothers having 3 children, 27.50% (11) were having 4 or more children, 20% (8) were having 2 children, 15% (6) were having 1 child. Findings related to evaluate the effectiveness of structured teaching programme by comparing the pretest and post-test knowledge score. The data presented in table frequency and percentage distribution of samples according to their level of knowledge. In pretest 57.50% of samples are good and in the post-test 77.50% got very good scores. The mean of post-test score (15.22) was higher than that of the mean of the pre-test score (9.95). The computed ‘t’ value was (11.212) higher than the table value at 0.05 level of significance so the research hypothesis was accepted.

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children at 0.05 level of significance.

Discussion
The present study was undertaken to evaluate the effectiveness of structured teaching program (STP) on knowledge of mother regarding prevention of home accidents among toddlers in rural community areas at Baraut in UP. The study was conducted in Chhapruli town at Baghpat district. The pretest was conducted by using a structured questionnaire on child safety measures with 20 items. After the structured teaching programme the knowledge level of mothers was evaluated by using the same questionnaire. The results and discussion of the study was based on the findings obtained from the statistical analysis ‘t’ test was used to test the significant difference between the pretest and post-test score. Chi-Square was used to find out the association between selected demographic variables with level of knowledge on child safety measures. Johnston B.D., Britt. J.D Ambrosio L., Mueller B.A., Rivara F.P. (2000) [27] Conducted a study to evaluate the feasibility, acceptability, and effectiveness of an injury prevention program among 213 families in Washington. Trained school personnel conducted home safety inspections as part of a planned home visit. Intervention families were offered educational materials as well as smoke detectors, batteries, ipecac, and age appropriate car safety restraints based on results of the home inspection. At a repeat home visit three months later, the proportion of families with a positive change in injury prevention knowledge or behaviour among those in the intervention group was compared with the proportion in the comparison group. Among the families of low-income children enrolled in preschool enrichment programs, home safety inspections and the distribution of safety. supplies by school based home visitors appears to improve knowledge and behaviour related to poisoning, smoke detector installation, and car safety seat use over three months of follow-up. An experimental study was conducted to enhance anticipatory guidance for injury prevention in a selected as experimental group and control group. A quasi-experimental design was used in collecting data results recommended that the frequency and impact of pediatric counselling on anticipatory guidance can be enhanced because low-income families face many barriers to carryout recommended safety practices.

Summary and Conclusion
This chapter deal with the analysis and interpretation of data collection from 40 mother who were selected form the rural town Chaproli. This chapter includes analysis and interpretation of description of sample characteristics, findings related to frequency percentage of level of knowledge, mean, median and standard deviation of pre-test and post-test knowledge score, the association between knowledge score and demographic variables The present study was undertaken to evaluate the effectiveness of structured teaching program (STP) on knowledge of mother regarding prevention of home accidents among toddlers in rural community areas at Baraut in UP. The study was conducted in Chaproli town at Baghpat district. The pretest was conducted by using structured questionnaire on child safety measures with 20 items. After the structured teaching programme the knowledge level of mothers was evaluated by using the same questionnaire. The results and discussion of the study was based on the findings obtained from the statistical analysis ‘t’ test was used to test the significant difference between the pretest and post-test score. Chi Square was used to find out the association between selected demographic variables with level of knowledge on child safety measures. Through this study it is concluded that the structured teaching programme was very effective in improving the knowledge of mothers regarding child safety measures. This chapter deals with the discussion, summary, conclusion, implication for nursing practice. Recommendations for future research in the field have also been presented.

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