International Journal of Preventive, Curative & Community Medicine
Volume 11, Issue 3&4 - 2025, Pg. No. 29-35
Peer Reviewed & Open Access Journal

Research Article

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Child Safety and Prevention of Home Accidents among Mothers of Under-five Children of selected areas of District Fatehgarh Sahib, Punjab

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DOI: https://doi.org/10.24321/2454.325X.202505

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How to cite this article:
Nawaz N. A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Child Safety and Prevention of Home Accidents among Mothers of Under-five Children of selected areas of District Fatehgarh Sahib, Punjab. Int J Preven Curat Comm Med. 2025;11(3&4):29-35.

Date of Submission: 2025-04-03
Date of Acceptance: 2025-07-01

A B S T R A C T

Background: The residents of tomorrow are today's children. They ought to leave behind a world that is safer, and healthy. Keeping their surroundings safe is the most crucial responsibility. In today's world, danger can be found not just on the roadways but also in homes and playgrounds, both in developed and developing nations. Every year, thousands of children lose their lives due to accidents that leave them permanently disabled.

Aim: The present study aimed to assess the effectiveness of a structured teaching programme (STP) on knowledge regarding child safety and prevention of home accidents among mothers of under-five children in selected areas of Fatehgarh Sahib, Punjab.

Material and Methods: A quantitative approach using a quasi-experimental pretest-posttest control group design was employed. Sixty mothers were selected through convenience sampling from two Anganwadi centres in Sirhind area. Thirty mothers formed the experimental group, and thirty formed the control group. Pre-tests were conducted for both groups using a self-administered questionnaire.

Result: The findings revealed a significant increase in knowledge among the experimental group after the intervention (p=0.000*). This indicates that the structured teaching programme was effective in enhancing mothers' knowledge regarding child safety and accident prevention. Furthermore, significant associations were found between pretest knowledge scores and socio-demographic variables such as age (p=0.000), number of children (p=0.001), educational status of the husband (p=0.004), educational status of the mother (p=0.03), and source of knowledge (p=0.000).

Conclusion: The study concluded that the structured teaching programme significantly increased the knowledge levels of mothers regarding child safety and the prevention of home accidents.

Keywords: Effectiveness, Structured Teaching Programme, Knowledge, Child Safety, Home Accidents, Mothers of Under-five children

Introduction

The residents of tomorrow are today's children. They ought to leave behind a world that is safer and healthy. Keeping their surroundings safe is the most crucial responsibility. In today's world, danger can be found not just on the roadways but also in homes and playgrounds, both in developed and developing nations. Every year, thousands of children lose their lives due to accidents that leave them permanently disabled. For children ages one to five, injuries rank among the leading causes of death in many developing nations. The Oxford English Dictionary defines an accident as any unplanned, unexpected event that results in bodily or mental harm. Since children are still developing in some areas, it makes sense that children who are less aware of danger would be among the most susceptible. Children are paramount to the future of any society, embodying potential, hope, and the promise of new beginnings. They are not only future leaders, caregivers, and innovators but also a source of joy and inspiration for families and communities. Beyond their own potential, children are extremely important because they help to shape the social, cultural, and economic fabric of the following generation. It is essential to make investments in their welfare, education, and health because these factors have a direct impact on a society's ability to flourish and prosper. Nurturing and protecting children, therefore, is not just a moral obligation but a strategic investment in a sustainable and prosperous future. Through their unique perspectives, creativity, and resilience, children have the power to challenge the status quo and drive meaningful change, making their well-being and development a priority of utmost importance. Children find a house to be an interesting place to explore, completely unaware of the possible threats. Although there will always be risks in life, most home mishaps can be avoided with the help of a household safety checklists. In India, the number of accidental injuries is rising, particularly among children who are injured at home. Therefore, it is crucial to have mothers' knowledge on hand in order to take preventative action and promote child safety.[1,2,3]

Need for the Study

In today's world, accidents are a much bigger problem for children's health in both developed and developing nations. Statistics reveal that the number of accidents in developing nations is equal to that in affluent nations. For children of all age groups accidents are the primary cause of death. Among all youngsters under the age of ten or twelve, children ages two and three as well as five and six have sustained the most accidental injuries. The majority of injuries to younger children occur in or near their own homes. Parents who understand that young children want to explore every corner of their quickly growing world can help avert many accidents. International surveys have revealed that national statistics on paediatric emergencies differ. The global death rate for the 5 million children who died from injuries was 83.7 per 100,000per year on average. There have been 238,000recorded fall-related deaths. It is estimated that 376,000 children drowned in 2004; families with low and moderate incomes account for 97% of these deaths. To create an environment with safety for children's growth and development, a mother's knowledge on child safety and prevention of home accidents is essential. Mothers who possess this knowledge are better able to reduce dangers and safeguard their children from everyday household hazards. Mothers can prevent accidents by taking preventative measures to childproof their houses and teach their kids about safety. These preventative measures include being aware of potential hazards within the home, such as electrical outlets, dangerous materials, sharp objects, and drowning hazards. This knowledge promotes a safe environment for learning and discovery in addition to averting mishaps and injuries, which may have long-term effects on a child's health and wellbeing. Moreover, knowledgeable mothers can teach their kids safety skills, enabling them to identify threats and take the necessary action. In the end, a mother's understanding of child safety plays a critical role in enhancing children's general health and safety by drastically lowering the frequency of mishaps that could be avoided. Researchers felt that in order to determine whether or not mothers of children under five were receiving knowledge, it was imperative to evaluate the effectiveness of a structured teaching programme on safety of children and accident prevention at home. Since no official published systematic reviews have been found evaluating the effectiveness of structured teaching programmes for child safety and the avoidance of home accidents, there is a knowledge gap in this area. It is difficult to find excellent research on this topic that examines how structured teaching programmes affect mothers of small children's understanding of child safety and how to prevent accidents at home. This review provided the catalyst for the researcher's present investigation, which looks at home accident prevention strategies, the effectiveness of structured teaching programmes for mothers of young children, and mothers' knowledge of child safety.[4,5,6]

Methodology

In the present study, quantitative research approach was used. This study's the research design was a quasi-experimental pretest post-test control group design. The study was carried out at 2 Anganwadi centres of Sirhind Area, district Fatehgarh sahib, Punjab. In the present study target population were mothers of children of under age of five of Sir hind Area of District Fatehgarh sahib, Punjab. The sample size was 60 mothers of under five children at selected Anganwadi centres of Sir hind Area, District

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202505

Fatehgarh sahib, Punjab. A convenience sampling technique was used in this study. The Independent variable in this study is structured teaching programme on knowledge regarding child safety and prevention of home accidents. The dependent variable in this study is level of knowledge regarding child safety and prevention of home accidents of among the mothers of under five children. The development of the tool was done with the help of extensive literature review and consultation with experts.

Table 1.Frequency and percentage distribution of mothers according to their demographic variables

N=60

Characteristics	Frequency and percentage distribution			
	Experimental group(n=30)		Control group(n=30)	
	Age of the mothers			
	Frequency	Percentage	Frequency	Percentage
21-30	2	6.7%	3	10%
31-40	26	86.6%	27	90%
41-50 or above	2	6.7%	0	0%
Residence of the mothers				
Urban residence	10	33.3%	20	66.7%
Rural residence	20	66.7%	10	33.3%
Type of family				
Nuclear	24	80%	19	63.3%
Joint	6	20%	11	36.7%
Number of children				
1	3	10%	5	16.7%
2	22	73.3	18	60%
3 or more	5	16.7%	7	23.3%
Educational status of husband				
Primary	9	30%	17	56.7%
High	9	30%	6	20%
Degree and above	12	40%	7	23.3%
Educational Status of the mother				
Primary	13	43.3%	10	33.3%
High	11	36%	12	40%
Degree and above	6	20%	8	26.7%
Occupation of husband				
Business	24	80	21	70%
Private employee	6	20	9	30%
Occupation of mother				
Home maker	15	50	17	56.66%
Business	5	16.66	10	33.3%
Private employee	10	33.3	3	10%
Family monthly income				
<3000	18	60	18	60%
Rs3001-5000	7	23.3	4	13.3%
Rs5001-8000	5	16.7	4	13.3%
>8000	-	-	4	13.3%

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202505

Source of Knowledge of mothers				
Health care professional	11	36.7	14	46.7%
Media	17	56.7	13	43.3%
Neighbors	2	6.7	3	10%

Analysis and Interpretation

The pretest distribution of mother's level of knowledge regarding child safety and prevention of home accidents is displayed in the above table 2. Among the mothers in the experimental group, maximum of 18(60%) had inadequate knowledge, followed by 8 (26.67%) had moderately adequate knowledge, and 4 mothers (13.33%) who had adequate knowledge. In the control group, a majority of 20 mothers (66.67%) had inadequate knowledge, 4 mothers (13.33%) had moderately adequate knowledge, and 6 mothers (20%) had adequate knowledge.

The post-test knowledge level regarding child safety and prevention of home accidents is displayed in the table 3. Among the experimental group, the majority 20 mothers (66.67%) had adequate knowledge, 7(23.3%) had moderately adequate knowledge, and 3(10%) had inadequate knowledge. In the control group, 9(30%) mothers had adequate knowledge, 7(23%) had moderately adequate knowledge, and the majority of mothers 14(46.67%) had inadequate knowledge.

Table 2.Frequency and percentage distribution of pre-test level of knowledge regarding child safety and prevention of home accidents for control (n=30) and experimental group (n=30) as per scoring criteria given below

N=60

Pretest Knowledge						
Experimental group (n=30)				Control group (n=30)		
Pretest knowledge	Frequency	Percentage	Mean ±SD	Frequency	Percentage	Mean ±SD
Inadequate Knowledge (0-12)	18	60%	10.07±2.04	20	66.67%	7.91±1.97
Moderately Adequate Knowledge (13-19)	8	26.67%	15.01±1.04	4	13.33%	13.86±3.04
Adequate Knowledge (20-25)	4	13.33%	21.72±3.06	6	20%	20.04±1.21

S Significant, P<0.05 NS Non-Significant, P>0.05

Table 3.Frequency and percentage distribution of post-test level of knowledge related to child safety and prevention of home accidents for the control(n=30) and experimental group(n=30) as per the scoring criteria given below

N=60

Post test level of knowledge						
Experimental group (n=30)				Control group (n=30)		
Range	Frequency	Percentage	Mean±SD	Frequency	Percentage	Mean±SD
Inadequate Knowledge (0-12)	3	10%	10.98±1.74	14	46.67%	10.18±2.87
Moderately Adequate Knowledge (13-19)	7	23.33%	17.92±4.37	7	23.33%	16.42±2.21
Adequate Knowledge (20-25)	20	66.67%	23.44±1.37	9	30%	22.55±3.36

Minimum Score = 0 Maximum Score =25

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202505

The above table 4 reveals that the mean score of post-test knowledge among the experimental group is 19±5.04,and the t value came out to be 15.01 at df=29, which is discovered to be statistically significant at the p value <0.05, whereas the mean score of post-test knowledge among the control group is 12.6±3.21,and the t value came out to be 6.41 at df=29, which is found to be statistically non-significant at p <0.05 - level of significance.

Therefore, it has been demonstrated that a structured teaching program is effective in increasing the knowledge level among mothers of the experimental group as compared to the mothers of the control group who did not receive any structured teaching program.

Pretest knowledge scores are significantly correlated with some sociodemographic variables, including age, number of children, mother's education, education of husband, and source of knowledge. While, there is no significant correlation between the pretest knowledge levels and other sociodemographic characteristics, including mother's and husband's occupations and monthly income of the family.

Table 4.Comparison of Mean Pre-test and Post-test Knowledge Scores and SD of mothers of both experimental and control group

N=60

Group	Experimental group (n=30)		Control group(n=30)	
	Mean ± SD	t-stats	Mean ± SD	t-stats
PRETEST	10.6±2.46	t=15.01 df=29 p= 0.000^{S}	11±1.86	t=6.41 df=29 p=0.32^{NS}
POSTTEST	19±5.04		12.6±3.21	

S Significant, P<0.05, NS Non-Significant, P>0.05

Table 5.Association between pretest level of knowledge and demographic variables of mothers of under-five children

N=60

Sociodemographic characteristics	Control Group n=30 f (%)	Experimental Group n=30 f (%)	F	Chi-square value xx^2
Age of mother				
21-30	3(10%)	2(6.7%)	5	25.21 df=2 p=0.000^{S}
31-40	27(90%)	26(86.6%)	53	
41-50	0(0%)	2(6.7%)	2	
Residence				
Urban residence	20(66.7%)	10(33.33%)	30	1.94 df=1 p=0.62^{NS}
Rural residence	10(33.3%)	20(66.7%)	30	
Family Type				
Nuclear family	19 (63.3%)	24(80%)	43	2.11 df=1 p=0.37^{NS}
Joint family	11 (36.7%)	6(20%)	17	
Number of children				
1	5(16.7%)	3(10%)	8	15.21 df=2 p=0.001^{S}
2	18(60%)	22(73.3%)	40	
3or more	7(23.3%)	5(16.7%)	12	
Education of husband				
Primary education High	17(56.7%)	9(30%)	26	18.10 df=2 p=0.004^{S}
school	6(20%)	9(30%)	15	
Degree and above	7(23.3%)	12(40%)	19	

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202505

Education of mother				
Primary	10(33.3%)	13(43.3%)	23	10.91 df=2 p=0.03^{S}
High	12(40%)	11(36.7%)	23	
Degree and above	8(26.7%)	6(20%)	14	
Occupation of husband				
Business Private	21(70%)	24(80%)	45	1.11 df=1 p=0.52^{NS}
employee	9(30%)	6(20%)	15	
Occupation of mother				
Home maker	17(56.67%	15(50%)	32	1.41 df=1 p=0.43^{NS}
Business	10(33.3%)	5(16.6%)	15	
Private employee	3(10%)	10(33.3%)	13	
Family monthly income				
<3000	18(60%)	18(60%)	36	2.90 df=2 p=0.62^{NS}
Rs 30001-5000	4(13.3%)	7(23.3%)	11	
Rs5001-Rs 8000	4(13.3%)	5(16.7%)	9	
>8000	4(13.3%)	0	4	
Source of knowledge				
Health professional	14(46.7%)	11(36.7%)	25	13.31 df=2 p=0.000^{S}
Media	13(43.3%)	17(56.7%)	30	
Neighbour	3(10%)	2(6.7%)	5	

S Significant, P<0.05, NS Non-Significant, P>0.05

Major findings of this study

Most of the mothers, 26 (86.6%), belonged to the age group of 31-40 years in the experimental group, and in the control group, the majority of mothers, 27 (90.0%), were in the age of 31-40 years. The majority of mothers in experimental group 20 (66.7%) were residing in rural areas, while in control group 20 (66.7%) were living in urban areas. The majority of subjects in both the experimental and control groups, 24 (80%) and 19 (63.3%), respectively, belonged to the nuclear type of family. In both the experimental and control groups, the maximum number of mothers had 2 children, 22 (73.3%) and 18 (60%), respectively. The majority of husbands had a degree or above level of education, 12 (40%) in the experimental group, and the majority of husbands had a primary level of education, 17 (56.7%) in the control group. The majority, 13 mothers (43.3%), had a primary level of education in the experimental group, with a maximum of 15 (50%) working as homemakers. In the control group, most mothers, 12 (40%), had a high school level of education, with the majority, 17 (56.6%), working as homemakers. The majority of the husbands in both groups were dealing with business, 24 (80%) and 21 (70%) in the experimental and control groups, respectively. The majority of the husbands in both groups were dealing with business, 24 (80%) and 21 (70%) in the experimental and control groups, respectively. The majority of the husbands in both groups were dealing with business, 24 (80%) and 21 (70%) in the experimental and control groups, respectively. In both groups most of the mothers had income below Rs 3000. Most of them in the experimental and control groups, 11 (36.7%) and 17 (56.7%), respectively, had a health care professional as a source of knowledge. In the pretest, the majority of the mothers had inadequate knowledge: 18 (60%) in the experimental group, and in the control group, the majority of the mothers, 20 (66.67%), had inadequate knowledge. Posttest level of knowledge was also revealed by the research. In the experimental group, the majority, 20 mothers (66.67%), had an adequate level of knowledge, whereas in the control group, the majority, 14 mothers (46.67%), had an inadequate level of knowledge. Posttest level of knowledge was also revealed by the research. In the experimental group, the majority, 20 mothers (66.67%), had an adequate level of knowledge, whereas in the control group, the majority, 14 mothers (46.67%), had an inadequate level of knowledge. The mean score of posttest knowledge among the experimental group is 19±5.04, and the t value came out to be 15.01 at df=29, which is discovered to be statistically significant at a p value <0.05, whereas the mean score of post-test knowledge among the control group is 12.6±3.21, and the t value came out to be 6.41 at d f=29, which is found

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202505

to be statistically non-significant at the p <0.05 level of significance. Therefore, it has been demonstrated that a structured teaching program is effective in increasing the knowledge level among mothers of the experimental group as compared to the mothers of the control group, who did not receive any structured teaching program.

Conclusion

This study attempted to find out the effectiveness of a structured teaching program on knowledge regarding child safety and prevention of home accidents among mothers of under-five children After administration of the structured teaching programthere was a significant improvement on knowledge regarding child safety and prevention of home accidents among mothers of under-five children. A structured teaching program was found to be effective in improving the knowledge regarding child safety and prevention of home accidents among mothers of under-five children. It indicates structured teaching program can be used for all age groups in terms of improving their knowledge. Structured teaching program interventions are cost effective, non-invasive, non-pharmacological, free from side effects and highly feasible. The researcher concluded that it can be used as an effective intervention to improve the level of knowledge.

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ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202505