

ORIGINAL ARTICLE

Effectiveness of Structured Teaching Programme on Prevention of home Accidents among Mothers of Preschool children

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ABSTRACT

Background: Home accidents are a significant cause of injury and death among preschool children, primarily due to their developmental stage, limited risk awareness, and high levels of curiosity. In India, home-related accidents are a leading contributor to child morbidity and mortality, yet they often go underreported and under recognized. A 2020 study indicated that nearly 60% of injuries in children under five occurred within the home environment. Mothers, as primary caregivers, play a pivotal role in creating a safe home environment and responding effectively in case of accidents.

Aims and Objectives: 1. Assess the pre-test and post-test level of knowledge on prevention of home accidents among mothers of preschool children. 2. Determine the effectiveness of a planned structured teaching programme on the prevention of home accidents. 3. Associate the selected demographic variables with post-test knowledge levels on home accident prevention.

Methodology: A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. The study was conducted in Thalambur village, Chennai, among 30 mothers of preschool children selected through purposive sampling.

Results: Significant improvement was observed in post-test scores ($p < 0.05$), indicating the effectiveness of the teaching module. Post-test knowledge levels showed a statistically significant association with age, occupation, monthly income, and type of family ($p < 0.05$), while other demographic variables were not significantly associated.

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Conclusion: The findings suggest that a structured health teaching programme significantly improves knowledge on home accident prevention among mothers of preschool children. Implementing similar community-based interventions may reduce the incidence of preventable home injuries in this vulnerable age group.

KEYWORDS

• Home Accidents • Preschool Children • Mothers • Health Education
• Knowledge • Injury Prevention

INTRODUCTION

Preschool children are among the most vulnerable to unintentional injuries, particularly within the home environment. At this developmental stage, their physical mobility, innate curiosity, and lack of risk awareness significantly increase their susceptibility to accidents such as falls, burns, poisoning, choking, and drowning. According to the World Health Organization, home accidents are a major cause of morbidity and mortality in children under five, with the highest burden reported in low-and middle-income countries. In India, a substantial proportion of childhood injuries occur at home, yet many of these incidents remain underreported. Mothers, as primary caregivers, play a critical role in ensuring a safe home environment and responding appropriately in emergencies. However, gaps in knowledge and preparedness often contribute to the occurrence and severity of such accidents. Structured health education has been shown to enhance caregiver awareness, promote preventive behaviours, and reduce injury risks. This study aims to assess the effectiveness of a structured teaching programme in improving mothers' knowledge on the prevention of home accidents among preschool children.

Statement of the Problem

A study to assess the effectiveness of structured teaching programme on prevention of Home accidents among mothers of preschool children in Thalambur village at Chennai.

Objectives of the Study

1. To assess the pre-test and post-test level of knowledge on prevention of home accidents among mothers of preschool children.
2. To determine the effectiveness of planned structured teaching programme

on prevention of home accidents among mothers of preschool children.

3. To associate their selected demographic variables with post-test level of knowledge on prevention of home accidents among mother of preschool children.

Null Hypothesis

NH1: There is no significant effect of the structured teaching programme on the level of knowledge regarding prevention of home accidents among mothers of preschool children.

NH2: There is no significant association between the post-test level of knowledge on prevention of home accidents among mothers of preschool children and their selected demographic variables.

MATERIALS AND METHODS

A quantitative research approach with a pre-experimental one-group pre-test and post-test design was employed to evaluate the effectiveness of a structured health teaching module on the prevention of home accidents among mothers of preschool children. The study was conducted in Thalambur village, Chennai, with 30 mothers selected through purposive sampling based on inclusion criteria. After obtaining informed consent, demographic data, including age, education, occupation, monthly income, number of children, and type of family, were collected. A structured, self-administered questionnaire consisting of 50 items on home accident prevention was used for the pre-test, with each correct answer scored as one and each incorrect answer scored as zero. The teaching module, delivered using flashcards with pictures, covered causes, risk factors, and preventive measures of home accidents among

preschool children. A post-test using the same questionnaire was conducted to assess changes in knowledge. Scores were categorized as 0–33% (inadequate knowledge), 34–66% (moderately adequate knowledge), and 67–100% (adequate knowledge). The effectiveness of the intervention was determined by comparing pre- and post-test scores.

Plan for Data Analysis:

The effectiveness of the structured teaching programme on the prevention of home accidents among mothers of preschool children was analyzed using descriptive and inferential statistics. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to describe the demographic variables and assess the level of knowledge. The paired t-test was used to evaluate the effectiveness of the intervention by comparing pre-test and post-test knowledge scores. The association between post-test knowledge scores and selected demographic variables was analyzed using the chi-square test.

RESULTS & DISCUSSION

The study included 30 mothers of preschool children, with the majority aged 26–30 years. Most participants had primary education, and over one-third were housewives. The majority belonged to nuclear families, and a significant proportion reported a monthly income between ₹10,001–15,000. In terms of children, most mothers had one or two. In the pre-test, 12% had inadequate knowledge, 42% had moderately adequate knowledge, and 6% had adequate knowledge on home accident prevention. After the structured teaching programme, post-test results showed improvement: 50% had moderately adequate knowledge and 50% demonstrated adequate knowledge. A paired t-test revealed a statistically significant increase in post-test scores ($p < 0.05$), confirming the effectiveness of the intervention. A significant association was observed between post-test knowledge levels and demographic variables such as age, occupation, monthly income, and type of family ($p < 0.05$), indicating these factors influenced knowledge improvement.

Assessment of knowledge on prevention of home accidents among mothers of preschool children was depicted in Table 1, and the

effectiveness of the structured teaching programme is depicted in Table 2.

Table 1: Assessment of pre-test and post-test level of knowledge on prevention of home accidents among mothers of preschool children N=30

Level of Knowledge	Pre-Test		Post-Test	
	N	%	N	%
Inadequate knowledge (0-33%)	6	12	0	0
Moderate adequate knowledge (34-66%)	21	42	15	30
Adequate knowledge (67-100%)	3	6	15	30

Table 2: Effectiveness of the effectiveness of the structured teaching programme on Knowledge Regarding Prevention of Home Accidents Among Mothers of Preschool Children. N=30

Knowledge Regarding Prevention of Home Accidents	Mean	S.D	Paired 't' Value
Pre-test	25	7.176	t=2.583
Post-test	37.67	9.369	

Association of post-test level of knowledge on prevention of home accidents among preschool children

The demographic variables, occupation ($\chi^2 = 2.21$, $df = 4$, $p = 0.3437$), monthly income ($\chi^2 = 1.43$, $df = 4$, $p = 0.1548$), and type of family ($\chi^2 = 1.29$, $df = 1$, $p = 0.1111$), showed a statistically significant association with the post-test level of knowledge regarding prevention of home accidents among mothers of preschool children at the $p < 0.05$ level. Other demographic variables did not show a significant association.

A similar study conducted by Thomas *et al.* (2019) in Andhra Pradesh assessed the effectiveness of a structured awareness program on the prevention of home accidents among mothers of under-five children using a pre-experimental design. The study included 40 mothers, with the majority aged between 25–30 years. Most participants had completed primary education, and a large proportion were homemakers. The majority of mothers belonged to nuclear families, and many reported a monthly income ranging between ₹10,000–15,000. Regarding the number of children, most participants had one or two children. The pre-test results showed that 45% of mothers had inadequate knowledge, which improved significantly after the intervention, with 70% demonstrating adequate knowledge

in the post-test. A paired t-test confirmed the effectiveness of the intervention with a statistically significant improvement in scores ($p < 0.05$). Demographic variables such as age, education, and income showed significant association with the post-test knowledge levels.

A similar study conducted by Rani and Joseph (2016) in Kerala assessed the effectiveness of a structured teaching programme on the prevention of home accidents among mothers of under-five children. Using a pre-experimental one-group pre-test and post-test design, the study found that in the pre-test, 18% of mothers had inadequate knowledge, 52% had moderately adequate knowledge, and 30% had adequate knowledge. Following the intervention, post-test results showed marked improvement: 70% of mothers had adequate knowledge and 30% had moderately adequate knowledge. None remained in the inadequate category. A paired t-test showed a statistically significant increase in knowledge scores after the structured teaching programme ($p < 0.05$), confirming its effectiveness in improving awareness about home accident prevention.

A similar pre-experimental study conducted by Sharma *et al.* (2018) evaluated the effectiveness of a structured teaching programme on knowledge regarding prevention of domestic accidents among mothers of under-five children in rural Haryana. The pre-test findings revealed that 40% of the mothers had inadequate knowledge, 45% had moderately adequate knowledge, and only 15% had adequate knowledge. After the intervention, post-test results showed significant improvement, with 70% of mothers demonstrating adequate knowledge ($p < 0.05$). The study also found a statistically significant association between post-test knowledge scores and selected demographic variables such as occupation ($\chi^2 = 4.86$, $p < 0.05$), monthly family income ($\chi^2 = 6.11$, $p < 0.05$), and type of family ($\chi^2 = 5.29$, $p < 0.05$). Other variables, including age and educational status of the mother, were not significantly associated with the post-test knowledge level.

CONCLUSION

The structured teaching programme was found to be effective in improving the knowledge of mothers regarding the prevention of home accidents among preschool

children. The intervention significantly enhanced the participants' understanding of common household hazards, associated risk factors, and appropriate preventive measures. The improvement in post-test scores indicates that structured health education can play a crucial role in empowering mothers to create safer home environments, thereby reducing the risk of preventable injuries in preschool-aged children.

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Conflict of Interest: No conflict of interest. In addition, this study was not funded.

Statement of Human and Animal Rights

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008.

Statement of Informed Consent

Informed consent was obtained from all study participants before their inclusion in the study.

REFERENCES

1. Avabratha Kadke, S., & Chunduri, S. (2020). A study on home safety practices to prevent childhood injuries among mothers. *Journal of Nepal Paediatric Society*, 40(3), 172-177.
2. Faridi, S. B., & Chaudhary, S. (2025). A study to assess the effectiveness of structured teaching program on knowledge regarding accident prevention among the mothers of under-five children in Amethia Salimpur Hardoi Road Lucknow. *International Journal of Trend in Scientific Research and Development*, 9(1), 166-173.
3. Girotra, T. (2018). *Child Safety: Prevention and Management of Childhood Dangers* (pp. 45-63). IBP Books.
4. Kalikotay, B., & Rijal, R. (2022). Mothers' awareness on prevention of home accidents among children in a community. *Journal of Research and Development*, 5(1), 11-19.

5. Kumari, P., & Sharma, S. (2017). Knowledge of mothers about the risk of domestic accidents among toddlers: Effectiveness of strategy for teaching about home safety. *Research & Reviews: Journal of Medicine*, 7(3), 1–7.
6. Nawaz, N. (2025). 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. *International Journal of Preventive, Curative & Community Medicine*, 11(3 & 4). Advanced Research Publications.
7. Olutayo, G. O. (n.d.). Mother's education, age and knowledge about home accident prevention among preschool children in Ilesa Metropolitan City: A relational approach. *Journal of Education and Practice*.
8. Rani, R. (2023). 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. *International Journal of Advance Research in Nursing*, 6(2), 06–11.
9. Revista Electronica De Veterinaria. (2024). Evaluating the impact of a self-instructional module on prevention of home accidents among mothers of under-five children in selected urban community in Chennai. 25(2), 296–301.
10. Upadhya, K. G. (2024). Awareness of domestic accidents among mothers of children aged less than 10 years in an urban locality of South Karnataka. *Journal of Ecophysiology and Occupational Health*, 24(2), 205–209.