

“ Evaluating The Impact Of A Self-Instructional Module On Prevention Of Home Accidents Among Mothers Of Under Five Children. ”

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ABSTRACT

Aim: The aim of the study is to evaluate the effectiveness of a self-instructional module in enhancing the knowledge of mothers regarding the prevention of home accidents among mothers of under five children in selected urban community in Chennai.

Context: Mothers, as primary caregivers, play a crucial role in creating a safe home environment. By implementing a self-instructional module, the study seeks to provide mothers with essential information and strategies for preventing accidents, ultimately aiming to improve child safety and well-being in the home.

Participants and Methods: A pre-experimental design employing a one-group pretest and post-test approach was selected for this study. The sample included 100 mothers of under five children chosen through a convenient sampling technique and divided into five smaller groups of 20 participants each. On the first day, the mothers completed a pretest questionnaire to assess their initial knowledge. On the second day, they were provided with a self-instructional module on prevention of home accidents and encouraged to read it and clarify any doubts. Finally, on the eighth day, a post-test was administered using a structured questionnaire to evaluate changes in knowledge.

Statistical Analysis Used: Data were analyzed with descriptive and inferential statistics.

Findings: The analysis of the study findings revealed that in the pretest, 66% of mothers had inadequate knowledge, while 34% had moderately adequate knowledge. In the post-test, there was a significant improvement, with 86% of mothers achieving adequate knowledge. The pretest mean score for knowledge on the prevention of home accidents was 13.13 (SD = 3.88), which increased to 25.09 (SD = 2.15) in the post-test. The calculated paired t-value of 27.758 was statistically significant at $p < 0.001$. Furthermore, the results indicated a statistically significant association between gender of the child and mothers knowledge regarding prevention of home accidents ($p < 0.05$). However, other demographic variables did not show significant associations with knowledge levels. Overall, the self-instructional module on the prevention of home accidents proved to be effective.

Keywords: Home Accidents, Under Five Children, Self instructional module

INTRODUCTION

Home accidents are a leading cause of injury among children, particularly those under five years old. This vulnerable age group is at a heightened risk due to their developing mobility, curiosity, and limited understanding of dangers in their environment. Common home accidents include falls, burns, poisoning, and choking, which can have serious consequences for children's health and well-being.

In urban settings like Chennai, rapid urbanization and changing family dynamics may contribute to an increased incidence of these accidents. Many families live in close quarters, often with limited space and safety features. Mothers, as primary caregivers, are instrumental in shaping their children's environment and can significantly influence their safety. However, there is often a gap in knowledge regarding effective prevention strategies.

Educational interventions, such as self-instructional modules, offer a promising approach to enhancing awareness and knowledge among mothers. These modules can provide accessible, easy-to-understand information on preventing home accidents and can be tailored to the specific needs of the community.

This study aims to assess the effectiveness of a self-instructional module designed to improve mothers' knowledge on home accident prevention in selected settings in Chennai. By evaluating the impact of this educational tool, the study seeks to contribute to the development of strategies that empower mothers and enhance child safety in the home environment.

OBJECTIVES

1. To assess the pretest knowledge on prevention of home accidents among mothers of under five children.
2. To assess the post-test knowledge on prevention of home accidents among mothers of under five children.
3. To determine the effectiveness of self-instructional module in improving mothers' knowledge regarding prevention of home accidents.
4. To analyze the relationship between selected demographic variables with the post-test knowledge on prevention of home accidents.

MATERIALS AND METHODS

Study Design

This study employed a one-group pretest and post-test design.

SAMPLE SIZ

The study included a sample of 100 mothers of under five children, who met the inclusion criteria were selected using a convenience sampling technique from thalambur , Chengalpattu district.

METHODOLOGY

A Quantitative research approach was used with structured self- administered questionnaire to assess the level of knowledge on prevention of home accidents among mothers of under five children.wide in thalambur. Data collection was done in January 2024.

Inclusion criteria

- ❖ Mothers of under five children
- ❖ Ability to read and understand the self-instructional module
- ❖ Mothers who were willing to participate

Exclusion criteria

- ❖ Mothers with severe visual or hearing impairment
- ❖ Mothers who were not present on the day of data collection
- ❖ Exposure to previous knowledge on prevention of home accidents.

Study tools and data collection methods

Based on an extensive literature review, discussions with experts, and the investigator's professional experience, a tool was developed to assess knowledge on prevention of home accidents.

The tool developed for the study comprises two sections:

Part I: Data collection tool

Part II: Intervention tool

PART I: DATA COLLECTION TOOL

Section A:

Demographic variables were assessed using a personal data sheet that recorded the following characteristics of the mother: age in years, child's gender, father's educational status, mother's educational status, family type, place of residence, monthly family income, mother's occupation, and number of children.

Section B:

Structured self- administered questionnaire to assess the level of knowledge on prevention of home accidents. It consists of 35 multiple choice questionnaires.

The overall score ranges from 0 to 35, with the following scoring criteria:

I.A correct answer receives a score of 1.

II.A wrong answer is assigned a score of 0.

- | | |
|-----------|--|
| 0-50% | Inadequate knowledge on prevention of home accidents |
| 51 - 75% | Moderately adequate on prevention of home accidents |
| 76 - 100% | Adequate knowledge on prevention of home accidents |

PART II: INTERVENTION TOOL

Self-Instructional Module regarding prevention of home accidents.

Self-Instructional Module regarding prevention of home accidents was developed after extensive reviews of textbooks, journals and obtaining experts opinion.

It comprised of the following components.

1. General aspects of home accidents
2. Definition home accidents
3. Types home accidents includes
 - choking
 - drowning
 - burns
 - cuts
 - falls
 - suffocation
 - Poisoning
 - laceration
4. Causes of home accidents
5. Signs and symptoms of home accidents
6. First aid measures of home accidents
7. Prevention and complications of home accidents.

Statistical Analysis

Data from all completed questionnaires collected from mothers of under five children were analyzed using both descriptive and inferential statistics

Ethical considerations

Confidentiality was upheld throughout the study, with only relevant sections of the questionnaire reviewed. Official approval was secured before data collection began. The questionnaires provided an explanation of the study's purpose and assured participants that their data would be used solely for scientific research

RESULTS

n = 100

Table1: Frequency and percentage distribution of demographic variables

S.NO	Demographic Variables	Frequency	Percentage
1.	Age of mother		
	a) 18 - 25 years	15	15%
		56	56%
	b) 26 - 30 years	29	29%
	c) Above 30 years		
2.	Gender of child		
	a) Male	60	60%
		40	40%
	b) Female		
3.	Education status of father		
	a) Illiterate	0	0%
		32	32%
	b) Primary education	48	48%
		20	20%
	c) Secondary education		
	d) Degree		
4.	Education status of mother		
	e) Illiterate	0	0%
	f) Primary education	15	15%
	g) Secondary education	50	50%
	d) Degree	35	35%
5.	Type of family		
	a) Nuclear family	70	70%
		30	30%
	b) Joint family		
6.	Place of residence		
	a) Rural	84	84%
	b) Urban	16	16%

7.	Monthly income of the family		
	a) Rs 10000-20000	20	20%
		44	44%
	b) Rs 20001 -30000	16	16%
		20	20%
	c) Rs 30001-40000		
	d) Above Rs 40000		
8.	Occupation of mother		
	a) Employed	40	40%
	b) home maker	35	35%
	c)Daily wagger	25	25%
9	Number of children		
	a) One	40	40%
	b) Two	50	50%
	c)Three	10	10%
	d)Above three	-	-

Table–2:Frequency and percentage distribution of pretest and post test level of knowledge on prevention of home accidents among mothers of under five children.

n= 100

Knowledge	Inadequate (0-50%)		Moderately Adequate (51–75%)		Adequate (76-100%)	
	No.	%	No.	%	No.	%
Pretest	66	66.0	34	34.0	0	0
Post Test	0	0	14	14.0	86	86.0

Table – 3: Comparison of pretest and post-test knowledge score on prevention of home accidents among mothers of under five children

n= 100

Knowledge	Mean	S. D	Paired ‘t’Value
Pre-test	13.13	3.88	t = 27.758 p =0.000, S***
posttest	25.09	2.15	

***p<0.001, S–Significant

Table - 4: Association of post-test level of knowledge on prevention of Home Accidents among mothers of under five children with their selected demographic variables

S.no.	Demographic variables	Moderate knowledge		Adequate knowledge		Chi square test
		No.	%	No.	%	
1.	Age of mother					0.187 df=2 P = 0.91 NS
	a)18 - 25 years	4	4.0	20	20.0	
		6	6.0	40	40.0	
	b)26 - 30 years	4	4.0	26	26.0	
2.	Child Gender					5.319 df=1 P = 0.02 S
	a) Male	9	9.0	30	30.0	
	b) Female	4	4.0	56	56.0	
3.	Education status of father					0.494 df=2 P = 0.780 NS
	a) Illiterate	0	0	0	0	
		4	5.0	20	20.0	
	b) Primary education	7	7.0	40	40.0	
		3	3.0	26	26.0	
	c)Secondary education					
4.	Education status of mother					0.81 df=2
	a) Illiterate	0	0	0	0	

S.no.	Demographic variables	Moderate knowledge		Adequate knowledge		Chi square test
		No.	%	No.	%	
	b)Primary education	5	5.0	24	24.0	P = 0.66 NS
		6	6.0	44	44.0	
	c)Secondary education	4	4.0	16	16.0	
	d) Degree					
5.	Type of family					0.29 df=1
	a)Nuclear family	10	10.0	55	55.0	P = 0.59 NS
	b)Joint family	4	4.0	31	31.0	
6.	Placeof residence					
	a) Rural	8	8.0	40	40.0	0.54 df=1 P= 0.46 NS
	b) Urban	6	6.0	46	46.0	
7.	Monthly income of the family					
	a) Rs10000-20000	0	0	0	0	0.68 df=2 P = 0.711 NS
		7	7.0	40	40.0	
	b) Rs20001 -30000	4	4.0	30	30.0	
		3	3.0	16	16.0	
	c)Rs30001-40000					
	d)Above Rs 40000					
8.	Occupation of mother					
	a) Employed	5	5.0	40	40.0	0.575 df=2 P = 0.750 NS
	b) home maker	6	6.0	30	30.0	
		3	3.0	16	16.0	
	c) Daily wager					
9	Number of children					
	a) One	5	5.0	45	45.0	2.66 df=2 P = 0.264 NS
		5	5.0	30	30.0	
	b) Two					
	c) Three	4	4.0	11	11.0	
	d)Above three	0	0			

* $p < 0.05$, S-Significant ,NS-Not Significant

Discussion

The percentage distribution of demographic variables of mothers of under five children. With regard to the demographic variables, the majority of mothers 56(56%)were aged between 26 and 30 years. 60(60%) of the children were male. 48(48%) of fathers and 50(50%) of mothers had received education up to the secondary level. 40(40%) of the mothers were employed. 70(70%) of the families were nuclear. 50(50%) of the mothers reported having two children in their family. 84(84%) lived in rural areas. 41(41%) had a monthly income between Rs 20,001 and 30,000.

The first objective was to assess the pretest level of knowledge regarding the prevention of home accidents among mothers of under five children . The results showed that the majority, 66 mothers (66%), had inadequate knowledge, while 34 mothers (34%) had moderately adequate knowledge. Importantly, none of the mothers demonstrated adequate knowledge on prevention of home accidents.

The second objective of the study was to assess the post-test level of knowledge regarding the prevention of home accidents among mothers of under five children after they completed the self-instructional module. The results indicated that, 86 mothers (86%)demonstrated adequate knowledge, while 14 mothers (14%) had moderately adequate knowledge on prevention of home accidents.

The third objective of the study was to evaluate the effectiveness of the self-instructional module on the prevention of home accidents. Statistical analysis was performed to compare the pretest and post-test knowledge levels regarding prevention of home accidents. The pretest mean score was 13.13 (SD = 3.88), while the post-test mean score increased to 25.09 (SD = 2.15). The calculated paired t-value was 27.758, which was statistically significant at $p < 0.001$. These

results clearly indicate that the self-instructional module significantly enhanced the mothers' knowledge on the prevention of home accidents.

The fourth objective of the study was to analyze the relationship between selected demographic variables and the post-test level of knowledge on the prevention of home accidents among mothers of under five children. The findings indicated a statistically significant association between the gender of the child and their knowledge on prevention of home accidents, with a p-value of less than 0.05. However, other demographic variables did not show any statistically significant association with the level of knowledge on prevention of home accidents among mothers of under five children.

Conclusion

The study showed that mother's knowledge on prevention of home accidents improved. Hence the self-instructional module can enhance the knowledge among mothers of under five children.

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