

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Common Pediatric Emergencies and Its First Aid Management Among Mothers of Under Five Children in Srm General Hospital

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ABSTRACT

First aid is a crucial intervention in managing pediatric emergencies and can play a vital role in preventing complications and fatalities. This study assesses the effectiveness of a structured teaching program aimed at improving the knowledge of mothers of under-five children regarding common pediatric emergencies and their first aid management at SRM General Hospital. A pre-experimental research approach was utilized, where 40 mothers participated in pretest and posttest assessments. The findings demonstrated a significant enhancement in knowledge post-intervention, underscoring the importance of structured teaching programs in maternal education. These programs equip mothers with the necessary skills to handle pediatric emergencies efficiently, thereby improving child health outcomes.

Keyword: Pediatric emergencies, First aid management, Structured Teaching Programme, Child safety

1. INTRODUCTION

Pediatric emergencies constitute a significant proportion of emergency department visits and require prompt attention to prevent severe consequences. Children under five years are particularly vulnerable due to their developing physiology and limited awareness of hazards.

Parents, especially mothers, are the first responders in most pediatric emergencies, making their knowledge of first aid management critical in ensuring immediate and appropriate care before professional medical assistance is available.

2. BACKGROUND OF THE STUDY

An injury was defined as any acute exposure to force (mechanical, thermal, electrical, chemical, or radiation) that exceeded the physiological tolerance threshold. Globally, injuries have a significant impact on the prevalence of sickness. After age five, injuries are India's second leading cause of death. In addition to having an effect on a person's physical health, injuries

can generate psychological problems due to the constraints they impose.

The environment in which a kid grows up has a substantial impact on the frequency and severity of injuries. The majority of injuries occur at or near a child's home. According to the UNICEF analysis, Nepal ranks 59th among nations with the highest under-five death rates, accounting for 42%. 1,900 Nepalese children died in unintentional incidents, accounting for 13% of all child mortality between the ages of one and 59 months. Low- and middle-income countries account for 95% of all child injury deaths.

Al-Bshri 2021, et al. Parents who grasp basic first aid may be able to manage emergency situations more effectively. Parents should always keep an emergency plan in place. It is critical to emphasize the importance of child safety by educating parents about various first aid methods.

Petson Nitty MM, 2020 It is estimated that 12,75,000 youngsters in India sustain serious injuries. 22,000 drowning-related deaths were reported. Every year, unintentional injuries kill at least 98 out of every 100,000 young people in Maharashtra. According to studies, the number of paediatric emergencies in emerging nations is equivalent to that in industrialized nations.

Safe Kids Worldwide, 2013. Worldwide Safe Kids reports that 40% of fatalities and 50% of non-fatal injuries in the United States occur in and around the home. Every year, 7,50,000 children die due to injuries. Forty million more individuals are at dire danger. Numerous injuries cause brain injury and long-term dysfunction

NEED FOR THE STUDY

The mother appears to be knowledgeable solely about first aid and safety procedures for children under the age of five. To safeguard their children from a variety of inadvertent disasters, mothers play an important role in promoting child health at home. A child requires the attention of their mother until they reach maturity. Injuries are a major factor influencing children's health. Mothers require or expect assistance from others with their practices; they are unable to offer this care on their own.

Community health nurses are essential member in the professional health care team. They are well educated about child's health and medical emergencies; they also have a direct contact with the mothers and their children and can assess environmental hazards.

AIM

A study to test the impact of organized instruction program on awareness of frequent pediatric emergencies and their first aid care among mothers of under five children in SRM General Hospital.

OBJECTIVES

Assess the pre- and post-test knowledge of common pediatric emergencies and first aid management among moms of under-five children, Determine the efficiency of a structured instruction program for common pediatric emergencies and first aid management among moms with under-five children, Associate the pretest and posttest levels of knowledge on common pediatric crises and first aid management among moms of under-five children with the demographic factors they chose.

HYPOTHESES

There was a significant difference in pre- and post-test knowledge of frequent pediatric crises and first aid management among moms with children under the age of five. There was a significant correlation between post-test knowledge of frequent pediatric emergencies and first aid management among mothers of children under five and selected demographic characteristics.

DELIMITATION & ASSUMPTIONS

The study is delimited to a period of data collection. Mothers of children under five may be familiar with frequent pediatric emergencies and first-aid procedures. A structured knowledge-based teaching program may increase moms' knowledge of common pediatric emergencies and how to manage them.

3. REVIEW OF LITERATURE

The review of literature is an important phase in the research process. It is a thorough and methodical review of previous recent publications relevant to the current research study. Before moving on to a new topic of study, researchers must first examine their existing knowledge. This helps the study advance as a stepping stone. A detailed review of the literature provides a foundation for new information. To establish a wide foundation for the topic under investigation, the investigator thoroughly reviewed the Studies on the awareness of frequent pediatric emergencies and their first aid management among mothers of under-five children. Studies on the effectiveness of the Structured Teaching Program on knowledge of frequent pediatric emergencies and their first aid care among mothers of under-five children.

4. METHODOLOGY

A pre-experimental research design with a pretest-posttest approach was employed in this study. The study was conducted at SRM General Hospital in the Pediatric Medical Ward and OPD. A total of 40 mothers of under-five children were selected through non-probability convenient sampling. Data were gathered using a structured knowledge questionnaire, assessing the mothers' understanding of common pediatric emergencies and their first aid management before and after the intervention. The structured teaching program provided systematic information through interactive sessions, demonstrations, and pamphlets. The data collected were analyzed using descriptive and inferential statistics to determine the program's effectiveness.

5. RESULTS (DATA ANALYSIS AND INTERPRETATION)

The pretest results indicated that 72.5% of mothers had moderate knowledge, while 10% had inadequate knowledge regarding pediatric emergency first aid management. Following the structured teaching program, 72.5% of participants demonstrated adequate knowledge, illustrating a substantial improvement in their ability to handle pediatric emergencies effectively. Statistical analysis confirmed a strong association between the posttest knowledge levels and selected demographic variables, highlighting the importance of targeted educational interventions for caregivers.

Table 1: Frequency and percentage distribution of demographic variables of mothers under-five years children.
N = 40

Demographic Variables	No.	%
Age of the mother		
20 – 25 years	19	47.5
26 – 30 years	15	37.5
31 – 35 years	5	12.5
36 – 40 years	1	2.5
Educational status of mother		
Illiterate	4	10.0
Primary school	9	22.5
Secondary school	9	22.5
Graduates	18	45.0
Age of the child		
Below 1 year	7	17.5
1 – 2 years	15	37.5
3 – 4 years	13	32.5
4 – 5 years	5	12.5
Religion		
Hindu	26	65.0
Christian	4	10.0
Muslim	5	12.5
Others	5	12.5
Family income		
Rs.1000 – 10000	16	40.0

Rs.11000 – 20000	13	32.5
Rs.21000 – 30000	9	22.5
Above Rs.30000	2	5.0
Type of family		
Nuclear	15	37.5
Joint	20	50.0
Extended	4	10.0
Single parent	1	2.5
Type of house		
Kaccha	12	30.0
Pakka	23	57.5
Semi pakka	5	12.5
Tent	-	-
Any history of previous accident?		
Yes	8	20.0
No	32	80.0
Have you ever managed a home accident?		
Yes	9	22.5
No	31	77.5
Source of information about prevention of accident		
Relatives	16	40.0
Friends	15	37.5
Mass media	7	17.5
Books	2	5.0
No. of underfive children in the family		
1 – 2	18	45.0
2 – 3	19	47.5
4 – 5	3	7.5

The table 1 shows that, most of the mothers of underfive children, 19(47.5%) were aged between 20 – 25 years, 18(45%) of mothers were graduates, 15(37.5%) were aged between 1 – 2 years, 26(65%) were Hindus, 16(40%) had family income of Rs.1000-10000, 20(50%) belonged to joint family, 23(57.5%) were staying in Pakka house, 32(80%) had no previous history accident, 31(77.5%) had not ever managed a home accident, 16(40%) had received information about prevention of accident through relatives and 19(47.5%) had 2 – 3 underfive children in the family.

Table 2: Frequency and percentage distribution of pretest and post test level of knowledge regarding common pediatric emergencies and its first aid management among mothers of underfive children.

N = 40

Level of Knowledge	Pretest		Post Test	
	F	%	F	%
Inadequate (0 – 8)	4	10.0	0	0
Moderate (9 – 16)	29	72.5	11	27.5
Adequate (16 – 24)	7	17.5	29	72.5

The above table 2 shows that in the pretest, 29(72.5%) had moderate knowledge, 7(17.5%) had adequate knowledge and 4(10%) had inadequate knowledge and in the post test, 29(72.5%) had adequate knowledge and 11(27.5%) had moderate knowledge.

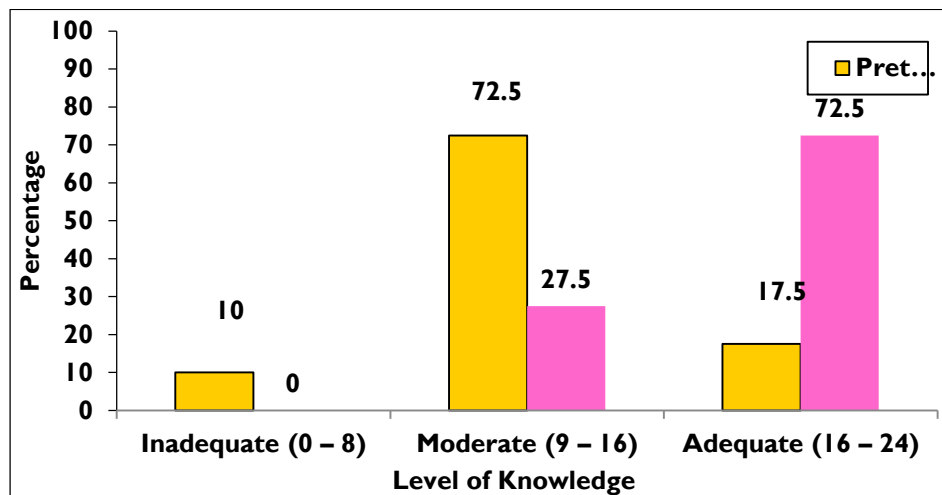


Fig:1.0 Percentage distribution of pretest and post test level of knowledge regarding common pediatric emergencies and its first aid management among mothers of under five children

Table 3: Comparison of pretest and post test knowledge regarding common pediatric emergencies and its first aid management among mothers of underfive children.N = 40

Knowledge	Mean	S.D	Paired “t” test & p-value
Pretest	12.80	3.83	t= 13.174 p=0.0001 S***
Post Test	17.82	2.19	

***p<0.001, S – Significant

The table 3 portrays that the mean score of knowledge was 12.80±3.83 and the post test mean score of knowledge was 17.82±2.19. The calculated paired “t” test value of t = 13.714 was statistically significant at p<0.001 level. This clearly infers that structured teaching programme on knowledge regarding common pediatric emergencies and its first aid management administered among the mothers of under five children was found to be effective in improving the level of knowledge in the post test.

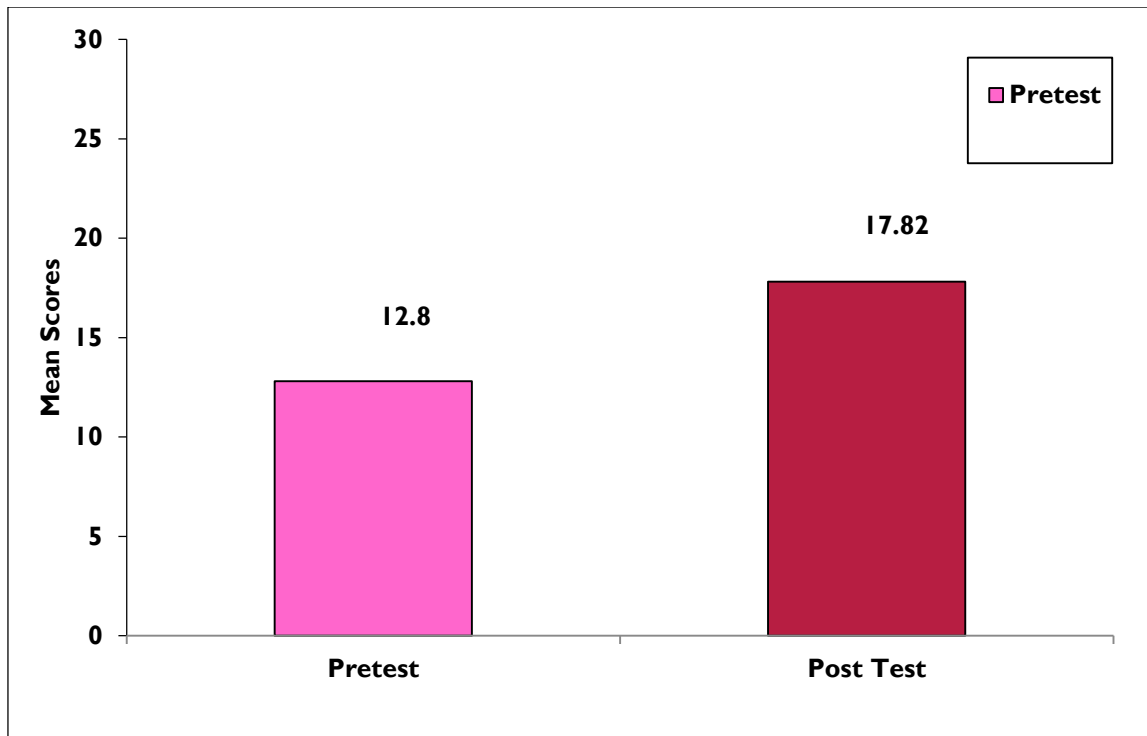


Fig: 1.2 Comparison of pretest and post test knowledge regarding common pediatric emergencies and its first aid management among mothers of underfive children

Table 4: Association of post test level of knowledge regarding common pediatric emergencies and its first aid management among mothers of under five children with their selected demographic variables.
N = 40

Demographic Variables	Frequency	Chi-Square & p-value
		Knowledge
Age of the mother		
20 – 25 years	19	$\chi^2=0.790$ d.f=3 p = 0.852 N.S
26 – 30 years	15	
31 – 35 years	5	
36 – 40 years	1	
Educational status of mother		
Illiterate	4	2=9.070 d.f=3 p = 0.028 S*
Primary school	9	
Secondary school	9	
Graduates	18	
Age of the child		
Below 1 year	7	$\chi^2=2.799$ d.f=3
1 – 2 years	15	

3 – 4 years	13	p = 0.424
4 – 5 years	5	N.S
Religion		
Hindu	26	$\chi^2=6.569$
Christian	4	d.f=3
Muslim	5	p = 0.087
Others	5	N.S
Family income		
Rs.1000 – 10000	16	2=1.731
Rs.11000 – 20000	13	d.f=3
Rs.21000 – 30000	9	p = 0.630
Above Rs.30000	2	N.S
Type of family		
Nuclear	15	$\chi^2=1.463$
Joint	20	d.f=3
Extended	4	p = 0.691
Single parent	1	N.S
Type of house		
Kaccha	12	$\chi^2=2.779$
Pakka	23	d.f=2
Semi pakka	5	p = 0.249
Tent	-	N.S
Any history of previous accident?		
Yes	8	$\chi^2=0.502$
		d.f=1
No	32	p = 0.479
		N.S
Have you ever managed a home accident?		
Yes	9	$\chi^2=0.198$
		d.f=1
No	31	p = 0.656
		N.S
Source of information about prevention of accident		
Relatives	16	$\chi^2=5.941$
Friends	15	d.f=3

Mass media	7	p = 0.115
Books	2	N.S
No. of underfive children in the family		
1 – 2	18	$\chi^2=2.573$
2 – 3	19	d.f=2
4 – 5	3	p = 0.276
		N.S

*p<0.05, S – Significant, N.S – Not Significant

The table 4 shows that the demographic variable education of mother ($\chi^2=9.070$, $p=0.028$) had statistically significant association with post test level of knowledge regarding common pediatric emergencies and its first aid management among mothers of under-five children at $p<0.05$ level and the other demographic variables had not shown statistically significant association with post test level of knowledge regarding common pediatric emergencies and its first aid management among mothers of under five children.

6. DISCUSSION

This chapter discusses the data analysis results based on the study's objectives. The study aims to analyze the effectiveness of the Structured Teaching Program on knowledge related common pediatric emergencies and their first aid management among mothers of under-five children in SRM General Hospital.

The analysis revealed that most of the mothers of under-five children, 19 (47.5%) were aged between 20 and 25 years, 18 (45%) of mothers were graduates, 15 (37.5%) were aged between 1 and 2 years, 26 (65%) were Hindus, 16 (40%) had family income of Rs.1000-10000, 20 (50%) belonged to joint family, 23 (57.5%) were staying in Pakka house, 32 (80%) had no previous history of accident, 31 (77.5%) had never managed a home accident, and 16 (40%) had received information about prevention of accident.

The first objective was to assess the pretest and posttest level of knowledge on common pediatric emergencies and its first aid management among mothers of under-five children. The analysis revealed in table 2 shows that in the pretest, 29(72.5%) had moderate knowledge, 7(17.5%) had adequate knowledge and 4(10%) had inadequate knowledge and in the post test, 29(72.5%) had adequate knowledge and 11(27.5%) had moderate knowledge.

The study results are found to be compatible with the study conducted by Rania Harere et al., (2017). The study's goal was to assess parents' first aid knowledge for frequent kid crises among parents of children aged 14 and younger.

The second goal was to examine the effectiveness of a structured instruction program on frequent pediatric emergencies and their first aid care among moms of under-five children. Table 3 shows that the mean knowledge score was 12.80 ± 3.83 , while the post-test mean score was 17.82 ± 2.19 . The derived paired "t" test value of $t = 13.714$ was statistically significant ($p < 0.001$). This obviously infers that a systematic instruction program on information related common pediatric emergencies and their first aid management conducted to mothers of under-five children was shown to be successful in improving the level of knowledge in the post-test.

The study findings were found to be compatible with the study conducted by Km Arti, et al., (2021), who conducted a quasi-experimental investigation. The sample was selected using purposive sampling, and the assessment's objectives were to determine the pre-test knowledge scores of mothers of children aged 1-6 regarding first aid for paediatric emergencies, as well as the impact of an instructional module on the knowledge of 48 mothers of children aged 1-6. Self-structured knowledge tests for paediatric emergency first aid were used.

The third goal was to link the pretest and post test levels of knowledge on frequent pediatric crises and first aid management among mothers of under-five children to their chosen demographic characteristics. Table 4 shows that the demographic variable education of mother ($\chi^2=9.070$, $p=0.028$) had a statistically significant association with post-test level of knowledge regarding common pediatric emergencies and its first aid management among mothers of under-five children at $p<0.05$ level. Other demographic variables did not show statistically significant association with post-test level of knowledge regarding common pediatric emergencies and its first aid.

The study findings were found to be compatible with the study conducted by N. Dhana Sekaran et al., (2021). Pediatric emergencies are most common among children under the age of five on property, roadways, and in their homes.

7. CONCLUSION

This study highlights the critical role of structured educational interventions in enhancing the first aid knowledge of mothers regarding pediatric emergencies. The significant improvement in posttest scores demonstrates that structured teaching programs are effective in increasing awareness and preparedness. Incorporating such educational programs in maternal and child health initiatives can greatly contribute to reducing pediatric emergency-related morbidity and mortality rates.

The current study assessed the impact of a structured instruction program on mothers of children under the age of five's awareness of common paediatric crises and how to respond to them using first aid. According to the study, mothers of children under the age of five had better post-test understanding of frequent paediatric crises.

The investigator had drawn the following implications from this study which is the vital concern to the field of nursing practice, nursing education, nursing administration and nursing research. Nurse researchers can inspire clinical nurses to apply study findings to their daily care and develop cost-effective teaching strategies for caring for under-five children. The dissemination of findings through conferences and professional publications will enable the successful application of research findings.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

STATEMENT OF INFORMED CONSENT

All study participants gave their informed permission before being included in the study

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