



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING DENGUE FEVER AMONG MOTHERS IN ANDIPATTI VILLAGE, DHARMAPURI

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Abstract

Background: Dengue fever is a major public health problem in tropical and subtropical regions, particularly affecting children. Mothers play a crucial role in the early recognition, prevention, and management of dengue fever in children. Improving maternal knowledge through structured educational interventions can help reduce morbidity and mortality associated with dengue fever.

Aim: To assess the effectiveness of a Structured Teaching Programme (STP) on knowledge regarding dengue fever among mothers in Andipatti village, Dharmapuri.

Methods: A quantitative quasi-experimental one-group pretest–posttest research design was adopted. Sixty mothers having children aged 1–5 years were selected using purposive sampling technique. Data were collected using a structured knowledge questionnaire. A Structured Teaching Programme on dengue fever was administered. Descriptive statistics and paired *t*-test were used for data analysis.

Results: The mean pretest knowledge score was 10.25 ± 2.22 , which increased to 19.35 ± 2.43 in the posttest. The paired *t*-test value ($t = 23.621$, $p < 0.001$) showed a statistically significant improvement in knowledge after the intervention.

Conclusion: The Structured Teaching Programme was highly effective in improving mothers' knowledge regarding dengue fever. Regular community-based health education programmes are recommended to strengthen dengue prevention and early management.

Keywords: Structured Teaching Programme, Knowledge, Dengue Fever, Mothers, Health Education

I. Introduction

Dengue fever is an acute viral illness transmitted by *Aedes aegypti* mosquito and is characterized by high fever, headache, myalgia, joint pain, and rash. Dengue haemorrhagic fever and dengue shock syndrome are severe forms that can be life-threatening, especially in children. The disease burden of dengue has increased rapidly in recent decades due to urbanization, climate change, and inadequate vector control measures.

Mothers are the primary caregivers of young children and play a vital role in prevention, early identification of symptoms, and seeking timely medical care. Lack of adequate knowledge regarding dengue fever contributes to delayed treatment and increased complications. Structured Teaching Programmes can effectively enhance maternal awareness and promote preventive practices, thereby reducing dengue-related morbidity and mortality.

II. Need for the Study

Dengue fever remains a significant public health concern in India, with seasonal outbreaks causing high morbidity among children. According to the World Health Organization, dengue incidence has increased nearly 30-fold globally over the last few decades. Studies have reported that a large proportion of mothers have inadequate knowledge regarding dengue transmission, symptoms, and preventive measures.

Since no specific antiviral treatment is available, prevention through vector control and early recognition remains the cornerstone of dengue management. Educating mothers through structured teaching can significantly improve preventive practices and early care-seeking behavior. Hence, this study was undertaken to evaluate the effectiveness of a Structured Teaching Programme on knowledge regarding dengue fever among mothers.

III. Objectives of the Study

1. To assess the pretest level of knowledge regarding dengue fever among mothers.
2. To assess the posttest level of knowledge regarding dengue fever among mothers.
3. To evaluate the effectiveness of the Structured Teaching Programme.
4. To find the association between posttest knowledge scores and selected demographic variables.

IV. Conceptual Framework

The conceptual framework for the study was based on **Modified Imogene King's Goal Attainment Theory**, which emphasizes interaction, communication, and mutual goal setting between the investigator and participants. The Structured Teaching Programme served as the intervention to improve maternal knowledge regarding dengue fever.

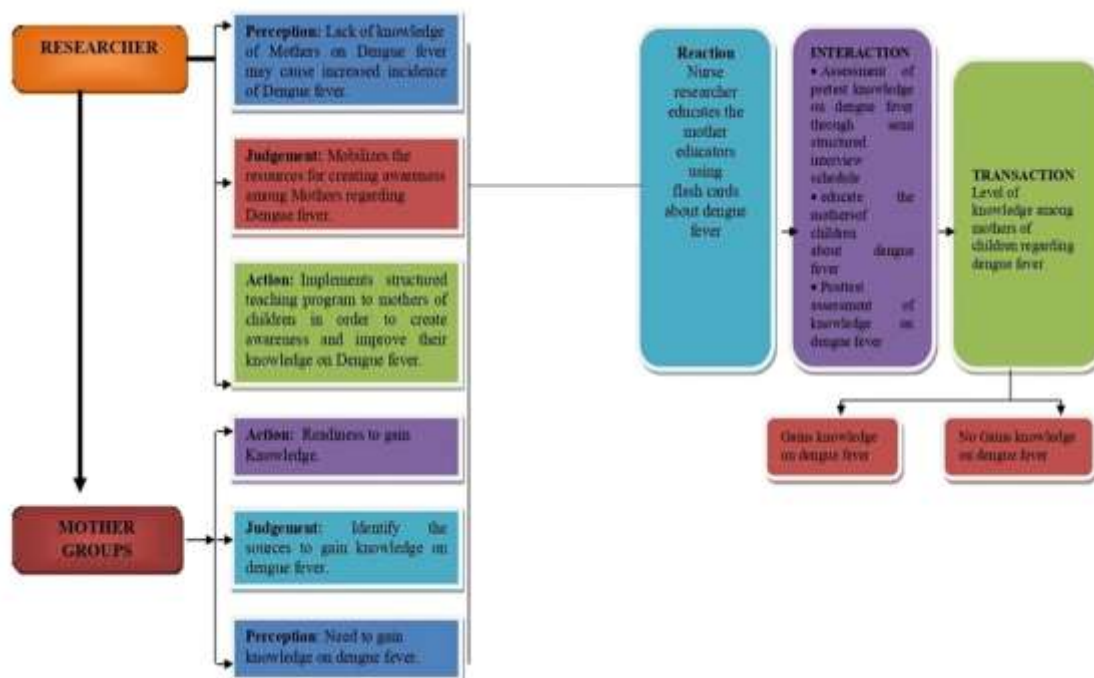


Figure 1: Conceptual Frame Work Based on Modified Imogene King Goal Attainment Theory

Research Methodology

Research Design: A quasi-experimental one-group pretest–posttest design.

Setting: The study was conducted in Andipatti village, Dharmapuri.

Sample and Sampling Technique: Sixty mothers having children aged 1–5 years were selected using purposive sampling technique.

Tool for Data Collection: A structured knowledge questionnaire consisting of 27 multiple-choice questions related to dengue fever.

Score Interpretation

Level of Knowledge	Score Range
Inadequate	0–9
Moderately adequate	10–19
Adequate	20–27

Intervention

A Structured Teaching Programme covering definition, causes, transmission, symptoms, management, and preventive measures of dengue fever.

Validity and Reliability

Content validity was established by experts in child health nursing, pediatrics, and statistics. Reliability was established using test–retest method ($r = 0.9$).

Data Analysis

Descriptive statistics (frequency, percentage, mean, SD) and inferential statistics (paired t -test, chi-square test) were used.

VI. Results

Table 1: Frequency and percentage distribution of pretest and posttest level of knowledge of mothers regarding dengue fever.
N =60

Level of Knowledge	Pretest		Post Test	
	F	%	F	%
Inadequate (0 – 9)	22	36.67	0	0
Moderately Adequate knowledge (10 – 18)	38	63.33	18	30.0
Adequate (19 – 27)	0	0	42	70.0

The table 1 shows that in the pretest 38(63.33%) had inadequate knowledge and 22(36.67%) had moderately adequate knowledge whereas in the post test, 42(70%) had adequate knowledge and 18(30%) had moderately adequate knowledge regarding dengue fever.

Table 2: Effectiveness of Planned Teaching Programme on the level of knowledge regarding dengue among mothers.

Knowledge	Mean	S.D	Mean Difference Score	Paired 't' test & p-value
Pretest	10.25	2.22	9.10	t=23.621
Post Test	19.35	2.43		p=0.0001, S***

***p<0.001, S – Significant

The table 2 shows that the pretest mean score of knowledge among mothers regarding dengue fever was 10.25 ± 2.22 and the post test mean score was 19.35 ± 2.43 . The mean difference score was 9.10. The calculated paired „t“ test value of $t=23.621$ was found to be statistically significant at $p<0.001$ level which clearly shows that there was significant improvement in the level of knowledge after the administration of Structured Teaching Programme. This infers that Planned Teaching Programme on knowledge regarding dengue fever was found to be effective in increasing the level of knowledge among mothers in the post test.

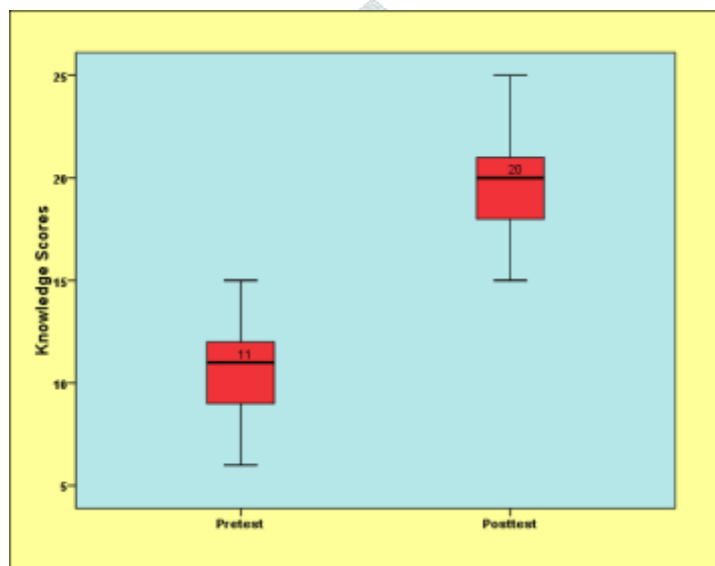


Figure 2: Boxplot showing the effectiveness of Planned Teaching Programme on the level of knowledge regarding dengue among mothers

Table 3: Association of posttest level of knowledge regarding dengue fever among mothers with their selected demographic variables.

N = 60

Demographic Variables	Frequency	Post Test	
		Chi-square &	p- value
1.Age of mother		$\chi^2=2.698$	
18 – 25 years	27	d.f=2 p=0.259	
26 – 35 years	30	N.S	
Above 36 years	3		
2.Education of the mother		$\chi^2=9.527$	
Pre degree	6	d.f=4 p=0.049	
High school	14	S*	
Middle school	10		
Elementary school	16		
No formal education	14		
3.Occupation of the mother		$\chi^2=0.115$	
Housewife	32	d.f=1 p=0.735	N.S
Daily wages	28		
Private employee	-		
Government employee	-		
Business	-		
4.Type of family		$\chi^2=0.033$	
Nuclear family	41	d.f=1 p=0.856	N.S
Joint family	19		
Extended family	-		
5.Religion		$\chi^2=2.857$	
Hindu	54	d.f=2 p=0.240	N.S
Muslim	4		
Christian	2		

Demographic Variables	Frequency	Post Test
		Chi-square & p- value
6.Monthly income of the family		$\chi^2=4.912$
Less than Rs.5,000	38	d.f=2 p=0.086 N.S
Rs.5,000 to Rs.15,000	20	
Above Rs.15,000	2	
7.Type of house		$\chi^2=0.887$
Kutchra house	2	d.f=1 p=0.346 N.S
Pucca house	58	
8.Water sources		
Tank & water – up	44	$\chi^2=2.857$ d.f=2 p=0.240 N.S
Ground water	12	
Municipal	4	
Hand pumps	-	
River water	-	
9.Drainage system		$\chi^2=0.079$
Open	48	d.f=1 p=0.778, N.S
Closed	12	
10.Food habits		$\chi^2=0.000$
Vegetarian	10	d.f=1 p=1.000 N.S
Non-vegetarian	-	
Both	50	
11.Previous knowledge about prevention of dengue		$\chi^2=0.571$
Yes	10	d.f=1 p=0.450 N.S
No	50	

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

The analysis revealed that none of the selected demographic variables showed a statistically significant association with the posttest level of knowledge regarding dengue fever among mothers. However, in the posttest, the educational status of the mother showed a statistically significant association with knowledge level ($\chi^2 = 9.527$, $p = 0.049$ at $p < 0.05$), while all other demographic variables did not demonstrate any significant association.

VII. Discussion

The study findings revealed a significant improvement in mothers' knowledge regarding dengue fever after the Structured Teaching Programme. Similar findings have been reported in previous studies, indicating that educational interventions are effective in enhancing knowledge and preventive practices. The statistically significant increase in posttest scores confirms the effectiveness of structured teaching in community settings.

VIII. Conclusion

The Structured Teaching Programme was effective in improving mothers' knowledge regarding dengue fever. Strengthening community-based educational interventions can play a key role in preventing dengue fever and reducing its complications among children.

IX. Nursing Implications

Nursing Education: Incorporate dengue prevention education into nursing curricula.

Nursing Practice: Community health nurses can conduct regular awareness programmes.

Nursing Administration: Development of dengue prevention policies at community level.

Nursing Research: Further studies with larger samples are recommended.

X. Recommendations

1. Similar studies can be conducted with larger samples.
2. Comparative studies in rural and urban settings can be undertaken.
3. Self-instructional modules and audiovisual aids can be used in future studies.

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