Original Article

Effectiveness of Structured Teaching Program on Knowledge of Dengue Fever among Adolescents

Rebecca Jadhav

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Abstract

Dengue is a very common health problem in India and its awareness is vital among children so as to prevent incidences of the same.

This study was conducted to assess the effectiveness of structured teaching on dengue fever among adolescents of selected higher secondary school.

The objectives of the study were to:

- To determine the pre-test & post-test level of knowledge regarding Dengue fever and its prevention among Adolescents in selected Higher Secondary school.

- To assess the effectiveness of structured teaching program on knowledge regarding Dengue fever and its prevention among Adolescents in selected Higher Secondary school.

- To find out association between post-test level of knowledge regarding Dengue fever and its prevention among Adolescents in selected Higher Secondary school and their socio demographic variables in the study group.

In this study effectiveness of Structured teaching program on knowledge of Dengue fever among Adolesents in higher secondary school was studied using structured questionnaire on knowledge regarding Dengue fever. The research design used in the study was one group pretest and post testpre experimental design. The knowledge regarding Dengue fever was assessed before and after the Structured teaching. The conceptual frame work of the study was based on Landwing Von bertalanffy General System Theory. The study was conducted among 60 Adolescents whose age was between 12 and 15 years of selected Higher Secondary school by using simple random sampling technique. The data was collected and analyzed based on objectives of the study using descriptive and referential statistics.

Mean value of pre-test was 15.16 which increased to 21.75 in post-test. The study revealed that the structured teaching increased the knowledge on Dengue fever among Adolescents in selected Higher Secondary school. The effectiveness of structured teaching was independent of the selected demographic data and baseline data.

The study concluded that structured teaching program can play a vital role in imparting knowledge to High Secondary school Students.

Keywords: Structured Teaching; Knowledge; Dengue fever; Adolescents in selected Higher Secondary school.

Author's Affiliation: Professor Cum Principal, Sumantai Wasnik Institute of Nursing, Nagpur, Maharashtra 440023, India.

Corresponding Author: Rebecca Jadhav, Professor Cum Principal, Sumantai Wasnik Institute of Nursing, Nagpur, Maharashtra 440023, India.a

E-mail: rebeccanissanka@yahoo.co.in

INTRODUCTION

Dengue fever, also known as break bone fever, is a mosquito-borne infectious tropical disease caused by the dengue virus. Dengue is a mosquito-borne viral disease caused by four distinct but closely related dengue virus (DENV) serotype (WHO, 2022). Symptoms include fever, headache, muscle and joint pains, and a characteristic skin rash that is similar to measles. In a small proportion of cases, the disease develops into life-threatening dengue hemorrhagic fever, which results in bleeding, thrombocytopenia, and leakage of blood plasma, or into dengue shock syndrome, in which dangerously low blood pressure occurs. Treatment of acute dengue fever is supportive, with either oral or intravenous rehydration for mild or moderate disease and use of intravenous fluids and blood transfusion for more severe cases. Along with attempts to eliminate the mosquito vector, work is ongoing to develop a vaccine and medications targeted directly at the virus.

OBJECTIVES

- To determine the pre-test & post-test level of knowledge regarding Dengue fever and its prevention among Adolescents in selected Higher Secondary school.

- To assess the effectiveness of structured teaching program on knowledge regarding Dengue fever and its prevention among Adolescents in selected Higher Secondary school.

- To find out association between post-test level of knowledge regarding Dengue fever and its prevention among Adolescents in selected Higher Secondary school and their socio demographic variables in the study group.

Research Hypothesis

H_1: There will be a significant difference between the pre-test and post-test level of knowledge regarding dengue fever and its prevention.

H_2: There will be a significant association between post-test level of knowledge regarding dengue fever and its prevention among Adolescents and their Socio demographic variable in the study group.

METHODS AND PROCEDURE

In this study effectiveness of structured teaching program on knowledge regarding dengue fever and its prevention among adolescents were studied using semi-structured questionnaire and likert scale. The research design used in the study was one group pre-test and post-test Pre-experimental design. Level of knowledge was assessed before and after the implementation of structured teaching. The conceptual framework of the study was based on Landwing Von bertalanffy General System Theory. Study was conducted among 60 Adolescents whose age was between 12 and 15 years. The data was collected and analyzed based on objectives of the study using descriptive and inferential statistics.

Description of the Tools

Part 1

A. The tool consists of demographic data of the nursing students such as sex, education of the student fathers education family monthly income, type of family, residential area and religion.

B. Data related to knowledge regarding consists of academic performances, parenting style and knowledge gained regarding Dengue fever and its prevention among adolescents.

Part 2 this consists of semi-standard questionnaire knowledge dengue fever and its prevention among adolescents.

The content validity of the tool was previously established as it was standardized tool. The final tool was prepared as per the suggestions and advices given by the experts. The reliability was tested using Karl Pearson method and co-relation co-efficient of knowledge questionnaire was r= 0.98 and attitude checklist was r=0.9 which found to be high. The tool was reliable. Structured teaching program was implemented.

RESULT AND DISCUSSION

1. Finding related to background factors of children
   - Maximum percentage (41.7%) of the subject in the age group of 13 years and minimum (6.6%) 15 years of the age group.

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- ♦ Maximum (41.6%) of subjects educations of mother have higher secondary education and minimum (11.6%) were illiterate.

- ♦ Maximum (43.47%) of subject education of father had higher secondary education and minimum (6.7%) were illiterate.

- ♦ Maximum (66.66%) of subjects occupations of mother were house wife and minimum (6.6%) were labor.

- ♦ Maximum (38.3%) of subjects occupation of father had private job and minimum (15%) were labor.

- ♦ Maximum (41.67%) of the subjects monthly income is ₹ 10000 and minimum

- (11.67%) were in the income group of ₹ >30001.

- ♦ Maximum (70%) reside in rural area and minimum (30%) reside in urban area.

- ♦ Maximum (18.33%) of them belong to nuclear family and minimum (81.67%) belong to joint family.

- ♦ Maximum (80%) of them had previous knowledge and minimum (20%) had no previous knowledge.

- ♦ Maximum (41.66%) of subject had source of information from social media and minimum (8.33%) of subject had source of information through relative.

2. Findings related to pretest and post test level of knowledge regarding dengue fever and its prevention among adolescents

Category	Pre test		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Excellent	0	0	27	45
Good	1	1.7	26	43.3
Average	29	48.33	7	11.7
Poor	30	50	0	0
Total	60	100	60	100

The above table shows that in the pre-test, 1 (1.7%) of the Adolescent had good knowledge, 29 (48.33%) of the Adolescent had average knowledge and 30 (50%) of the Adolescent had poor knowledge whereas in the post test, 27 (45%) of the subjects had excellent knowledge, 26 (43.3%) of the Adolescent had good knowledge and 7 (11.7%) of the Adolescent had average knowledge.

3. Findings related to effectiveness of structured teaching program

Knowledge Score	Mean	Mean % S	Mean difference	Standard deviation	Standard error	'Z' Value	'Z' value at P<0.05	Inference
Pre-test	15.16	50.53%		4.54				
			6.59		0.84	7.84	2.00	Significant
Post-test	21.75	72.5%		4.72				

The above table, Predicts the 'Z' test computed to assess the effectiveness of semi structured program on birth preparedness. The pretest means score is 15.16 and posttest mean score is 21.75 and Mean percentages of pre-test is 50.53% and post-test is 72.5%. Mean difference is 6.59 and Standard deviation of pretest is 4.54 and posttest is 4.72 and standard error is 0.84. The calculated 'Z' test value is 7.84 which is greater than the table value, 2.00 at $p<0.05$ level of significance. Hence the research hypothesis H_1 is accepted.

4. Findings related to association between Post-test knowledge and demographic variable

- ♦ As per the chi-square value at ($p<0.05$) regarding age, education of mother, education of father, occupation of mother, occupation of father, monthly income, residence, type of family, previous knowledge and source of information were not significant. Therefore the null hypothesis (H_0) was accepted and the research hypothesis (H_2) was rejected.

♦ It was inferred that there was no significant association between background factors and post test level of knowledge regarding dengue and its prevention among Adolescents.

Declaration of No Conflict of Interest

The authors of this study declare no conflict of interest in the execution, analysis, or publication of this research. No financial, professional, or personal affiliations influenced the study's outcomes or the structured teaching program's effectiveness. This research was conducted solely for academic purposes to enhance knowledge and public awareness of dengue fever prevention among adolescents.

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Ethical Clearance Statement

This study titled *"To ssess the Effectiveness of Structured Teaching Program on Knowledge of Dengue Fever among Adolescents in Selected Higher Secondary School"* was conducted with strict adherence to ethical research practices. The research protocol was reviewed and approved by an appropriate institutional ethics committee. Participants were informed about the purpose, procedure, and expected outcomes of the study. Informed consent was obtained from participants and their guardians, ensuring confidentiality and voluntary participation. The study was designed to avoid any physical or psychological harm to participants and followed all ethical guidelines for research involving human subjects.

CONCLUSION

Dengue is very common in urban area now days so its awareness is vital for prevention and proper treatment. Hence this research was undertaken for the benefit of community as a whole and adolescents in particular

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