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A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING DENGUE FEVER AND IT'S PREVENTION AMONG STUDENTS IN SELECTED HIGHER SENIOR SECONDARY SCHOOL STUDENTS AT UDAIPUR CITY, RAJASTHAN

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ABSTRACT

Dengue has emerged as a global threat, while scientist still know little about, how the virus infects cells and causes the disease. Most people with dengue recover without any ongoing problems. The mortality is 1-5% without treatment and less than 1% with adequate treatment, however sever disease carries a mortality of 26%. dengueis endemic in more than 110 countries. It infects 50 to 100 million people worldwide a year, leading to half a million hospitalization, and approximately 12,500 to 25,000 deaths. It has a disease burden up to 16000 disability - adjusted life years per million populations. The world health organization estimates that around 2.5 billion people are at a risk for dengue infection every year. Thus the researcher felt that there is a need to assess as an "Effectiveness of Structured Teaching Programme On Knowledge Regarding Dengue Fever And It's Prevention among Students in Selected Higher Senior Secondary School Students at Udaipur City Rajasthan." Finding & conclusion of the study are when the sample was taken for the study the samples had less knowledge about dengue fever and it's prevention. The structured teaching programme regarding dengue

fever and it's prevention was found to be effective in increasing the knowledge of higher senior secondary school students. The sample had significant gain in knowledge after structured teaching programme.

KEYWORDS: Knowledge, Effectiveness, Structured Teaching Programme, Dengue Fever, Prevention & Higher Senior Secondary School Students.

INTRODUCTION

Dengue is one of the most common mosquitoes borne disease in India. It causes a high fever and a rash. Unlike most mosquitoes, dengue causing mosquitoes bites during the day. The cause of dengue fever is Aedes Aegypti. Dengue is an acute fever caused by a virus. It occurs in two form; Dengue fever and Dengue Hemorrhagic Fever. Dengue fever is marked by the onset of sudden high fever, severe headache and pain behind the eyes, muscles and joints. Prevention of Dengue involves all efforts of control is directed against mosquitoes. It is important to take control measures to eliminate the mosquitoes and their breeding place. Dengue mosquitoes bite during the daytime. Protect yourself from the bite by wearing full sleeve clothes, use of repellent, mosquito coils, nets, protection of people sick with dengue.

OBJECTIVES

- To assess the level of knowledge regarding dengue and its prevention among the higher senior secondary school students.
- To evaluate the effectiveness of Structured Teaching Programme regarding dengue and its prevention among the higher senior secondary school students.
- To find out association between the level of knowledge with selected demographic variables regarding dengue and it's prevention among the higher senior secondary school students.

MATERIAL AND METHOD

Research Design: One Group Pretest Post Test Design.

Setting of The Study: Vidhya Niketan Higher Senior Secondary School, Udaipur, Rajasthan, India.

Description of Tool

Tools are divided into two parts

a) Demographic data

b) The structured questionnaire to assess the level of knowledge.

Population of The Study: Higher Senior Secondary students who are study in Vidhya Niketan Higher Senior Secondary School, Udaipur, Rajasthan, India.

Sample Size: The Sample Size Selected For Study is 80 Higher Senior Secondary students.

Sampling Technique: in the present study use convenient sampling technique.

RESULT AND DISCUSSION

Organization and presentation of data -

The findings were organized and presented under following sections:-

Section – 1: Socio-demographic characteristics and clinical profile of Higher Senior Secondary School Students.

Table 1: Frequency & percentage distribution of selected socio-demographic variables.

N = 80

S. No.	Variable	Frequency	Percentage
1.	**Age**		
	16 year	3	3.75 %
	17 year	15	18.75 %
	18 year	33	41.25 %
	19 year	29	36.25 %
2.	**Area of residence**		
	Rural	29	36.25%
	Urban	51	63.75%
3.	**Family income**		
	Less than 10,000	23	28.75 %
	10,001-20,000	19	23.75 %
	20,001-30,000	22	27.5 %
	30,001 above	16	20 %
4.	**Stream of Studies**		
	Arts	18	22.5 %
	Commerce	31	38.75%
	Science	31	38.75 %
5.	**Source of information**		
	No information	21	26.25 %
	Mass media	19	23.75 %
	Family members	16	20 %
	Health personal	14	17.5 %
	Peer group	10	12.5 %
6.	**Education qualification of mother**		
	Non-formal education	12	15 %

	Primary education	14	17.5 %
	Secondary education	22	27.5 %
	Senior secondary education	14	17.5 %
	Graduation or above	18	22.5 %
7.	**Occupation of father**		
	Farmer	12	15 %
	Government employee	24	30 %
	Businessman	28	35 %
	Private employee	16	20 %
8.	**Food habits**		
	Vegetarian	28	35 %
	Non-vegetarian	52	65 %

Section – 2: Assessment of level of knowledge scores of respondents regarding use of dengue fever and its prevention

Part-I: Area wise pre-test knowledge score of respondents on use of health education on dengue fever and its prevention among urban area.

Part-II: Area wise post-test knowledge score of respondents on use of health education on dengue fever and its prevention among urban area.

Part- III: Distribution of respondents by the level of knowledge regarding use of dengue fever and its prevention dengue fever and it's prevention.

Part-I

Table: 2 Area wise pre-test knowledge score of Respondents regarding Prevention of dengue fever.

N=80

Area	Maximum Score	Mean	Mean Percentage	Standard Deviation
Definition of dengue fever	02	0.46	23.09%	0.68
Incidence	01	0.21	21.27 %	0.46
Causes	06	0.90	18.07 %	0.95
Incubation period	01	0.20	19.60 %	0.44
Risk factors	01	0.12	12.01 %	0.35
Sign and symptoms	02	0.32	16.07 %	0.57
Diagnosis	01	0.20	20.19 %	0.45
Management	06	1.14	18.98 %	1.07
Prevention	11	2.36	21.45 %	1.54
Total	30	9.63	32.10%	3.10

Table 2: Area wise analysis shows that in pre-test the maximum mean percentage obtained by the respondents 0f definition of dengue regarding, 23.09% with SD of 0.68 in the aspect of incidence regarding,21.27% with SD 0.46 in the aspect of causes of dengue, 18.07% with SD

of 0.95 in the aspect of incubation period of dengue, 19.60% with SD of 0.44 in the aspect of risk factor of dengue, 12.01% with SD of 0.35 in the aspect of sign & symptoms of dengue, 16.07% with 0.57 in the aspect of diagnosis of dengue fever,20.19% with SD 0.45 in the aspect of management of dengue,18.98% with SD 1.07 in the aspect of prevention of dengue, 21.45% with SD 1.54.

Part-II

Table 3: Area wise post-test knowledge score of respondents on use of on dengue fever and it's prevention among higher senior secondary school students Udaipur city, Rajasthan.

N=80

Area	maximum score	Mean	Mean percentage	standard deviation
Definition of dengue fever	02	0.35	17.5%	0.59
Incidence	01	0.01	1.25%	0.11
Causes	06	0.67	13.47%	0.82
Incubation period	01	0.21	21.27%	0.46
Risk factors	1	0.20	19.60%	0.44
Sign and symptoms	02	0.25	12.59 %	0.50
Diagnosis	01	0.15	15.43%	0.39
Management	06	1.19	19.79%	1.09
Prevention	11	2.30	22.98 %	1.52
Total	30	2.82	9.40%	1.68

Table 3: Area wise analysis shows that in post-test the maximum mean percentage obtained by the respondents 0f definition of dengue regarding, 17.5%% with SD of 0.59 in the aspect of incidence regarding, 1.25% with SD 0.11 in the aspect of causes of dengue, 13.47% with SD of 0.82 in the aspect of incubation period of dengue, 21.27% with SD of 0.46 in the aspect of risk factor of dengue, 19.60% with SD of 0.44 in the aspect of sign & symptoms of dengue, 4.23% with 0.50 in the aspect of diagnosis of dengue fever, 15.28% with SD 0.39 in the aspect of management of dengue,19.79% with SD 1.09 in the aspect of prevention of dengue, 22.98% with SD 1.52.

PART- III

Table 4: Distribution of respondents by the level of knowledge regarding use of dengue fever and its prevention dengue fever and it's prevention.

N=80

Level of knowledge	Score	Frequency		Percentage	
		Pre-test	Post-test	Pre -test	Post –test
Inadequate knowledge (0-50%)	0-14	75	00	93.75%	00%
Moderately knowledge (51-75%)	15-21	5	15	6.25%	18.75%
Adequate knowledge (76-100%)	22-30	0	65	00%	81.25%
Total	30	80	80	100%	100%

Table 4: Depicts the pre-test and post-test knowledge regarding Dengue fever and it's prevention. The result shows that in pre-test none of the respondents had adequate knowledge, 0.00% had moderately knowledge and 6.25% had inadequate knowledge and in pre-test 93.75%, post-test had adequate knowledge81.25 % had moderately knowledge 18.75% of the respondent had inadequate knowledge 0.00% regarding use of dengue fever and its prevention and it's prevention and it's prevention among higher senior secondary school, Udaipur Rajasthan.

Section – III: Effectiveness of structured teaching programme on knowledge regarding Dengue fever and it's prevention.

Table 5: Effectiveness of structured teaching programme on knowledge regarding Dengue fever and it's prevention.

N=80

Knowledge	Mean	Mean %	SD	Enhancement	Enhancement Percentage (%)	Df	Z Value	Inference
Pre-test	9.63	32.10	3.10	6.81	22.7%	79	35.03	**S***
Post test	2.82	9.40	1.68					

S* = Significant **NS = Not Significant**

Table 5: The result showed that the mean post-test knowledge score is 2.82 (9.40%) is greater than the mean pre-test knowledge score 9.63 (32.10%). The above table also depicts that the enhancement in the knowledge of respondents is 6.81 (22.7%) supporting the post-test knowledge score are higher than the pretest knowledge score. The data further represent that the 'Z' value of 35.04 is significantly higher than the table value 1.96 at 0.05 level

significance. This indicates that there was difference in pre-test and post-test knowledge score of respondents and Structured Teaching Programme is effective in improving the knowledge score of higher senior secondary school students on dengue fever and it's prevention.

H_1: There is a significant difference between the pre and post-test knowledge score of on use of higher senior secondary school students in structured teaching programme on dengue fever and it's prevention. Hypothesis was tested at 0.05 levels. The calculated 'Z' value 35.04 is significantly higher than the table value 1.96 at 0.05 level of significance. This indicates that there is significant difference between pre-test and post-test knowledge score, hence the hypothesis is proved and accepted.

SECTION – IV: Finding related to association between pre-test knowledge score with selected demographic variables of it dengue fever and it prevention.

This section deals with analysis and interpretation of the data collected to find out the association between pre-test knowledge score with selected demographic variables like; Age, Area of residence, family income, streams of studies, source of information, education qualification of mother, occupation of father, food habits.

A parametric chi square test is used to describe the association between pre-test knowledge score with selected demographic variables.

Table 6: Association between pre-test knowledge score of respondent with selected demographic variables.

N=80

Variables	Below median	Above median	Total	Chi square	Df	P value (0.05)	Inference
Age in years							
16Year	2	1	3	2.05	3	7.81	N.S
17 Year	5	10	15				
18 Year	12	21	33				
19 Year	8	21	29				
Total	**27**	**53**	**80**				
Area of residence							
Rural	6	23	29	3.47	1	3.84	N.S
Urban	21	30	51				
Total	**27**	**53**	**80**				
Family income per month							
Less than 10000	8	15	23	1.19	2	5.99	N.S

10001-20000	8	11	19				
20,001-30,000	7	15	22				
30,001above	4	12	16				
Total	**27**	**53**	**80**				
Streams of studies.							
Arts	5	13	18	1.52	2	5.99	N.S
Commerce	9	22	31				
Science	13	18	31				
Total	**27**	**53**	**80**				
Source of information							
No information	9	12	21	558.02	2	5.99	S.
Mass media	6	13	19				
Family members	6	10	16				
Health personal	4	10	14				
Peer Group	2	8	10				
Total	**27**	**53**	**80**				
Education qualification of mother							
No formal education	3	9	12	5.31	4	9.49	N.S
Primary education	6	8	14				
Secondary education	7	15	22				
Senior Secondary education	8	6	14				
Graduation or above	4	14	18				
Total	**28**	**52**	**80**				
Occupation of father							
Farmer	8	16	24	1.18	2	5.99	N.S
Government employee	7	12	19				
Businessman	8	13	22				
Private employee	4	12	16				
Total	**27**	**53**	**80**				
Food habit							
Vegetarian	10	18	28	0.07	1	3.84	N.S
Non-vegetarian(Mixed)	17	35	52				
Total	**27**	**53**	**80**				

S = Significant **NS = Non-Significant**

H_2: There is a significant association between pre-test knowledge score with selected socio demographic variables.

The chi-square test was carried out to determine the association between the pre-test knowledge and socio-demographic variables such as like age in year, area ofresidence, family

income, streams of studies, source of information, education qualification of mother, occupation of father, food habit.

Out of which age in years χ^2=2.05, Area of residence χ^2=3.47, Family income χ^2=1.19, Streams of studies χ^2=1.14,Source of information χ^2=558.02,Education Qualification of mother $\chi^{2==}$5.31, Occupation of father $\chi^{2==}$1. 19, Food habit $\chi^{2==}$0.07.

The researcher found the significant associated with pre-test knowledge score at 0.05 levels with the socio-demographic variables such as Source of information χ^2=558.02. Hence research hypothesis H_2 is accepted. The data also revealed that researcher does not found significant with age in year, area of residence, family income, streams of studies, source of information, education qualification of mother, occupation of father, food habit.

CONCLUSION

The following conclusion was made from the following finding of the study. When the sample was taken for study the sample has less knowledge about dengue fever & it's prevention. The structured teaching programme on knowledge regarding dengue fever & it's prevention was found to be effective in increasing the knowledge of higher senior secondary students. The sample had significant gain in knowledge after the structured teaching programme. The structured teaching programme on knowledge of dengue fever & it's prevention was found to be effective in enhancing to become aware of the significant dengue fever & it's prevention & the role of higher senior secondary students towards dengue fever & it's prevention.

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REFERENCES

1. Dengue and severe dengue (Fact sheet). World Health Organization, Geneva, Switzerland, 2016 [cited 18 August 2016].
2. Global Strategy for dengue prevention and control, 2012–2020. World Health Organization, Geneva, Switzerland, 2012.

3. World Health Organization. Dengue, guidelines for diagnosis, treatment, prevention and control. Geneva: World Health Organization; 2009. [Online] Available from: http://www.who.int/ tdr/publications/ documents/dengue-diagnosis.pdf [Accessed on 18 August 2016].
4. https://en.m.wikipedia.org.Denugue fever and it's prevention PDF.