A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION AND CONTROL OF DENGUE FEVER AMONG 4th YEAR BASIC B. SC. NURSING STUDENTS IN A SELECTED NURSING COLLEGES AT AURANAGABAD.

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ABSTRACT

The aim of the present study is to assess the effectiveness of Structured teaching programme on knowledge regarding prevention and control of Dengue fever. Dengue fever is most important arthropod-born viral infection of humans." Dengue Fever is an acute febrile disease caused by infection of Dengue virus which is transmitted by the female Aedes mosquito and it is called break bone fever. A study to assess the effectiveness of structured teaching programme on knowledge regarding prevention and control of dengue fever among fourth year basic B.sc Nursing students.

Objectives of the study:

- To assess the knowledge level of 4 th year B. Sc. nursing students regarding prevention and control of Dengue Fever by using a structured knowledge questionnaire.
- To evaluate the effectiveness of structured teaching programme on prevention and control of Dengue Fever among 4 th year B. Sc. nursing students in term of gain in mean post-test knowledge score.
- To findout the association between the knowledge score of 4 th year B.sc nursing students regarding prevention and control of dengue fever with selected demographic variables.

Methods: A simple Quasi experimental one group pre-test post-test design is used for the study with 100 samples. After the 7th day of intervention post-test has conducted and the collected data was analysed using descriptive and inferential statistics.

Result: Evaluation of the effectiveness of Structured teaching programme on knowledge regarding prevention and control of Dengue shows that The mean post-test knowledge score obtained by the subject (x_2=17.16) were higher than the mean pre-test knowledge score (x_1=11.13). The calculated 't' value (t_{29}=9.57) was found to be significant (t_{29}= 2.04).

Interpretation and conclusion: Findings of the study showed that the knowledge score of the students' nurses regarding prevention and control of Dengue Fever were less before the introduction of STP. The STP facilitated them to gain more knowledge about prevention and control of Dengue Fever which was evident in post-test knowledge scores. Hence it can be concluded that STP was an effective strategy for providing information and to improve knowledge of student nurses regarding prevention and control of Dengue Fever.

Key Words: Effectiveness, knowledge, Dengue Fever, Structured teaching programme., students

INTRODUCTION

From time memorial with the spring of newer life, clustering of ample innovation in the emerging scientific field we have witnessed the drastic turnover of medical advancement in the prevention of various diseases; most noted are those of killer disease.

Incubation period of Dengue Fever is 3-12 days. Fever is the most common symptoms along with headache myalgia, arthralgia, leukopenia, and rash. The disease can be controlled through prevention. Primary prevention is protection from mosquito bite, insecticide and mosquito repellent are some effective domestic methods to avoid vector. Awareness about the disease prevention will help people to avoid getting the disease[4]. According to WHO report of 2009, it is estimated that 50-100 million Dengue Fever cases and 26000 deaths are reported annually and 2.5 billion people or 40 percent of the world population is at risk of Dengue Fever, and the mortality rate is increasing. Dengue exerts a huge burden on population, health systems and economy as well. During multinational survey in 2007 Dengue was found to be the second most common disease after Malaria[4]

A shift of focus is largely placed on those most prevalent, namely, Dengue, Malaria, Filaria etc. Among communicable disease, Dengue Fever is nowadays the most common health concern of the world and it is significant to address this issue because it is a rapidly growing vector borne disease[1]. The possible causes of Dengue Fever worldwide are rapid urbanization, population growth, and international air travel to the endemic countries. The occurrence persist to rise mostly for the reason because of the effects of globalization, unsuccessful planning for urbanization, and a shortage of vector control and climate change.

MATERIALS AND METHODS

Variables

Two types of variables were identified in this study.

Dependent variables: Knowledge levels of 4th year B. Sc. students regarding prevention and control of Dengue Fever.

Independent variables: Structured teaching programme on prevention and control of Dengue Fever.

Settings- selected Nursing colleges of Aurangabad

Sampling technique: In this study a simple random sampling technique is used with 100 samples

Research design: The researcher approach adapted for the study was pre-experimental, using one group pre-test, post-test design (one group exposed to the pre-test and the same after administration of structured teaching programme post-test).

- The research design used in the present study is quasi experimental one group pre-test post-test design.

GROUP	Pre-test	Intervention	Post-test
4th year B. Sc. nursing students	O_1	X	O2

Data collection process: The data collection date, time and place were confirmed after discussing with the principal and 4th year B. Sc. nursing class coordinator. A sample of 100 was selected by using simple random sampling method. A structured knowledge questionnaire administered to assess the pre-test knowledge level and the planned teaching programme was given on the same day. Post-test was conducted on the 7th day with the same structured knowledge questionnaire.

RESULTS

The mean post-test knowledge score (17.16) was higher than the mean pre-test knowledge score (11.13). The computed 't' value ($t_{29}=9.57$; $P<0.05$) showed a significant difference suggesting that the STP was effective in increasing the knowledge of the students regarding prevention and control of Dengue Fever.

TABLE NO.1 DISTRUBUTION OF SAMPLES ACCORDING DEMOGRAPHIC VARIABLES N=100

SR.NO	DEMOGRAPHIC VARIABLES	FREQUECY	PERCENTAGE
1.	AGE		
	a. 18-24	90	90
	b. 21-25	10	10
2.	GENDER		
	a. Male	40	40
	b. Female	60	60
3.	TYPE OF FAMILY		
	a. Nuclear	60	60
	b. Joint	30	30
	c. Extended	10	10
4.	RESIDENTIAL AREA		
	a. Urban	70	70
	b. Rural	30	30
5.	SOURCE OF INFORMATION		
	a. Mass media	30	30
	b. Relatives	20	20
	c. Neighbors	25	25
	d. Friends	25	25
6.	TYPE OF DRAINAGE SYSTEM		
	a. Open	20	20
	b. Closed	80	80

Table no.1 above table shows that maximum number 90% of samples belongs to age between 18-24. According gender the maximum number of students are females ,according to the type of family 60 %belongs to nuclear family, residential area comes from urban area 70 %, the source of information provided by mass media, the type of drainage system belongs to 80 % closed system drainage.

2. Knowledge level regarding prevention and control of Dengue Fever: Knowledge level regarding prevention and control of Dengue Fever was assessed using a structured knowledge questionnaire and was analyzed by using descriptive statistics, which is represented in Table I and Figure 3. Data in Figure 1 and Table 1 shows that in post-test most of the subjects (56.67%) had good knowledge score ranging between 17-24, whereas in the pre-test majority of the subjects (90%) had average knowledge ranging between 9-16. In the pre-test 10% subjects had poor knowledge score ranging between 1-8, but in the post-test none of the subjects had scored poor knowledge. The data in Table 2 and Figure 1 shows that mean percentage knowledge score of pre-test was highest (49.33%) in the area of definition, etiology, risk factors, types and least (21.0%) in the area of pathophysiology, signs and symptoms and diagnostic evaluation. In post-testmean percentage knowledge score was highest (70.0%) in the area of prevention, control, management and complications and least (46.67%) in the area of pathophysiology, signs and symptoms and diagnostic evaluation. Data regarding pre-test and post-test knowledge score was analysed in terms of descriptive and inferential statistics. In order to find out the significance of difference between the pre-test and post-test knowledge score regarding prevention and control of Dengue Fever paired 't' test was used and the data is presented in Table 4. Data in Table 4, shows that the mean post-test knowledge score (17.16) was significantly higher than the mean pre-test knowledge score (11.13). The computed't' value($t_{29}=9.57$) was higher than he table value ($t_{29}=2.04$) at $P<0.05$ level of significant. Hence the null hypothesis H_{01} was rejectedand the research hypothesis was accepted.

Table 2. Distribution of subjects according to the grading of pre-test and post-test knowledge level scores

N=100
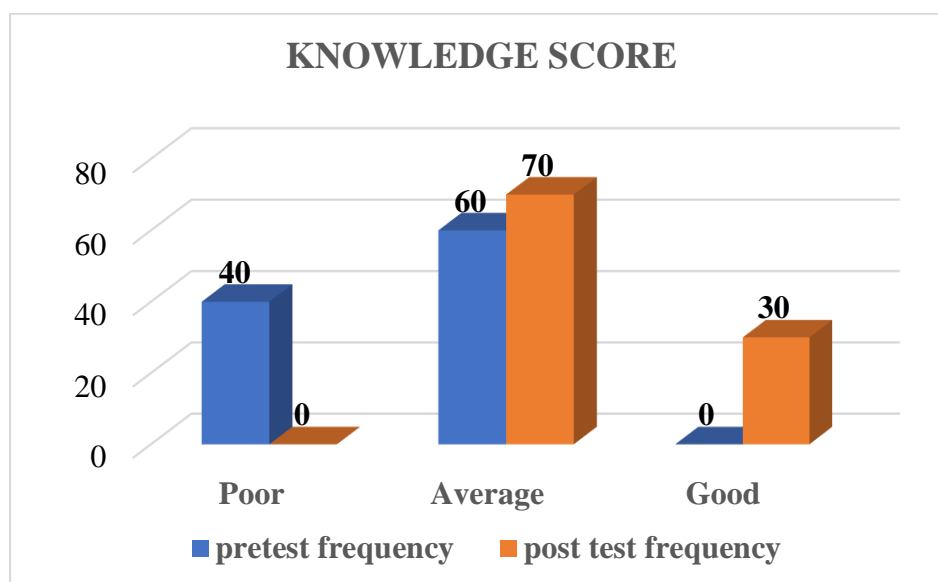
Figure 1. Graph diagram representing the distribution of subjects according to the level of knowledge

Table 3. Mean, median and SD of pre-test and post-test knowledge score of 4th year B. Sc. nursing students regarding prevention and control of Dengue Fever

KNOWLEDGE SCORE	MEAN	MEDIAN	SD
PRE-TEST	11.13	15.5	2.59
POST-TEST	17.16	15.5	2.37

3. To findout the association between the knowledge score of 4 th year B.sc nursing students regarding prevention and control of dengue fever with selected demographic variables.

The association between knowledge score of 4 th year B.sc nursing students regarding prevention and control of dengue fever with selected demographic variables were age, gender, residential area ,source of information there no significantly association found whereas type of family(x^2 =42.1,p=0.000) and type of drainage system(x^2 =28.2,p=0.001 at level of <0.005 significantly associated.

DISCUSSION

Knowledge level regarding prevention and control of dengue fever

The mean post-test knowledge scores (x_2=17.16) was higher than the mean pre-test knowledge scores (x_1=11.13) suggesting the STP helped in improving the knowledge of 4th year B. Sc. nursing students regarding prevention and control of Dengue Fever. Similarly a study conducted to assess the knowledge regarding Dengue Fever among nursing students. The mean pre-test knowledge score for B. Sc. nursing students was 11.47±3.87 and for the it was 8.65±2.72. In the post-test mean knowledge score for B. Sc. students was 20.4±3.4 and 18.1±3.45 for B.sc students. It indicated the STP was effective in improving the knowledge of Nursing Students regarding Dengue Fever.

Effectiveness of STP in terms of gain in post test knowledge score
The finding of the study showed significant increase in post- test knowledge and the computed 't' value (t_{29}=9.57) was found to be significant (table value: t_{29}=2.05). These findings were consistent with another study conducted to assess the effectiveness of STP on knowledge and prevention of Dengue Fever among 4 th year basic b.sc nursing. It was evident that 56% of the housewives had poor and 44% had average score regarding practice. The

overall post test knowledge score (17.16±2.37) was significantly higher than overall mean pre-test score (11.13±2.59) and the paired 't' value (t$_{29}$= 9.57) was found significant and suggested that the teaching was effective.

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Recommendations
- A study could be replicated of large sample, therebyfindings could be generalized.
- A comparative study could be conducted in differentsettings to find out the effectiveness of STP.
- An experimental study could be replicated with acontrol group.
- Sample can be selected from other nursing institutions.
- A follow-up study of STP could be carried out to find out the effectiveness in terms of retention of knowledge.

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