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A Study to Evaluate the Impact of Structured Teaching Program on GNM-Ist Year Students Knowledge Regarding Prevention of Dengue Fever of Health and Hygiene Nursing Education Institute at Alwar

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Abstract: ***Aim: A study to evaluate the effectiveness of structured teaching program in enhancing the knowledge of First year GNM students regarding the prevention of dengue fever. Objective: To asses pre-test and post-test knowledge, to compare pre-test and post-test knowledge, to determine the association of post-test knowledge regarding prevention of dengue fever among GNM 1St year students. Methodology: An evaluatory approach with one group pre-test post-test design was used on 50 Student on Dengue fever prevention through purposive sampling. Result: About 42 (84%) of the students had poor knowledge regarding Dengue fever prevention. The overall knowledge score mean percentage was 8.14% in pre test and post test mean percentage was 24.8%, SD of pre test 3.96 & post test was 4.62. Chi-square analysis indicated a significant association between post test knowledge scores. The study highlights the importance of targeted educational programs in improving awareness about dengue fever prevention.***

Keywords: Dengue fever, health education, STP Structured Teaching Programme, X^2 Chi-square, H Hypothesis, SD Standard deviation, P Probability, D f Degree of freedom, n Sample size, M Mean, S Significant, NS Not significant

1. Introduction

Communicable diseases have affected human life even since earlier times and continue to be major health problems. Dengue is the most common one when compared to all the arthropod-borne viral diseases. Dengue fever is an acute, infectious, commonest arboviral disease, caused by dengue viruses, transmitted from person to person, by the bite of infective, female, Aedes mosquito. Dengue virus is a member of Flavi-virus group, belongs to Castle's group Band family Togaviridae. It is RNA virus, spherical, 17 to 25 milli microns in diameter. Serologically there are 4 types, DEN-1, DEN-2, and DEN-3and DEN-4. The most efficient vector is Aedes aegypti mosquito. It is most efficient because of its peri- domestic habit, i.e., it breeds near human habitations, in the water, collected in artificial containers like coconut shell, broken pot and bottle, flower vase, air coolers, etc. It is a black mosquito with white bands. So it is called as "Tiger mosquito". [2]Dengue fever is an emerging public health problem in India. So special attention is required to be paid for its prevention and control. [3]

A mosquito-borne viral disease occurring in tropical and subtropical areas. Dengue can range from asymptomatic infection or mild illness to severe disease. An estimated 1 in 4 dengue virus infections are symptomatic. Symptomatic dengue virus infection most commonly presents as a mild to moderate, acute febrile illness. Infection with one of the four dengue viruses will induce long-lived immunity for that specific virus. Because there are four dengue viruses, people can be infected multiple times in their life. Early clinical findings are nonspecific but require a high index of suspicion because recognizing early signs of shock and promptly initiating intensive supportive therapy can reduce risk of death among patients. [4]Symptoms include high fever, headache, rash and muscle and joint pain. It may also cause nausea and vomiting. In severe cases there is serious bleeding and shock, whichcan be life threatening. Treatment includes symptom management which might include fluids and pain relievers. Severe cases require hospital care. [5]The incidence of dengue has grown dramatically around the world in recent decades, with cases reported to WHO increased from 505 430 cases in 2000 to 5.2 million in 2019. The disease is now endemic in more than 100 countries in the WHO Regions of Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific. Asia representing around 70% of the global disease burden. The largest number of dengue cases ever reported globally was in 2019. All regions were affected, and dengue transmission was recorded in Afghanistan for the first time.

2. Methodology

Statement of the problem:
A study to evaluate the effectiveness of structured teaching program on knowledge regarding prevention of dengue fever among GNM 1St year students of health and hygiene Education Institute at Alwar.

Objectives of the Study:
1) To asses pre-test knowledge regarding prevention of dengue fever.
2) To asses post-test knowledge regarding prevention of dengue fever.

3) To compare pre-test and post-test knowledge regarding prevention of dengue fever.
4) To determine the association of post-test knowledge regarding prevention of dengue fever.

Hypotheses:

H1: There will be a statistically significant difference between pre-test and post- test knowledge scores on prevention of dengue fever among GNM 1st year students.

H2: There will be some significant association between post-test knowledge score of GNM 1st year students with their selected demographic variables.

Setting of the study:

This study will be conducted at Health and Hygiene Education Institute at Alwar.

Population:

The population was GNM 1St year students of Health and Hygiene Education Institute at Alwar.

Sample and Sampling Technique Sample:

Sample for the present study is GNM 1St year students of Health and Hygiene Education Institute at Alwar. Sample size for the present study is 50 GNM 1St year students. In the present study the use of Purposive sampling technique

Description of the tool:

Section-A: deals with demographic data consist of 8 Items used to collect the sample characteristics, which comprises of age, gender, religion, resident, type of family, socio economic status, family member in health care system, previous knowledge related to prevention of dengue fever.

Section-B: consists of 30 items, which has the knowledge questions about the knowledge of prevention of dengue fever using multiple choice questions.

There were 30 statements covering knowledge questions items with 4 options out of which one is the correct response. For every correct response a score of "one" and for every wrong response a "zero" was awarded. There were 30 knowledge questions with a maximum score is 30 and minimum score is zero.

Reliability of the tool:

The reliability coefficient was found to be 0.89. It was statistically significant and thus highly reliable.

Pilot Study:

The pilot study is a small preliminary investigation of the same general character as the major study. The main aim is to assess the feasibility, practicability and assessment of measurement. It was conducted at Health and hygiene Nursing Education Institute at Alwar.

Result: Comparison of Respondents on Pre Test & Post Test Knowledge Level on Prevention of Dengue Fever:

Knowledge Score	Pre- Test		Post Test	
	No.	%	No.	%
Poor (0-10)	42	84%	2	4%
Average (11-20)	6	12%	5	10%
Good (21-30)	2	4%	43	86%
Total	50	100%	50	100%

Table reveal that pre- test result shows 42(84%) students had poor knowledge, 6(12%) had average knowledge and 2(4%) had good knowledge. Whereas, in the post test result shows 4(4%) students had poor knowledge, 5(10%) had average knowledge and 43(86%) had good knowledge regarding prevention of dengue depict in figure.

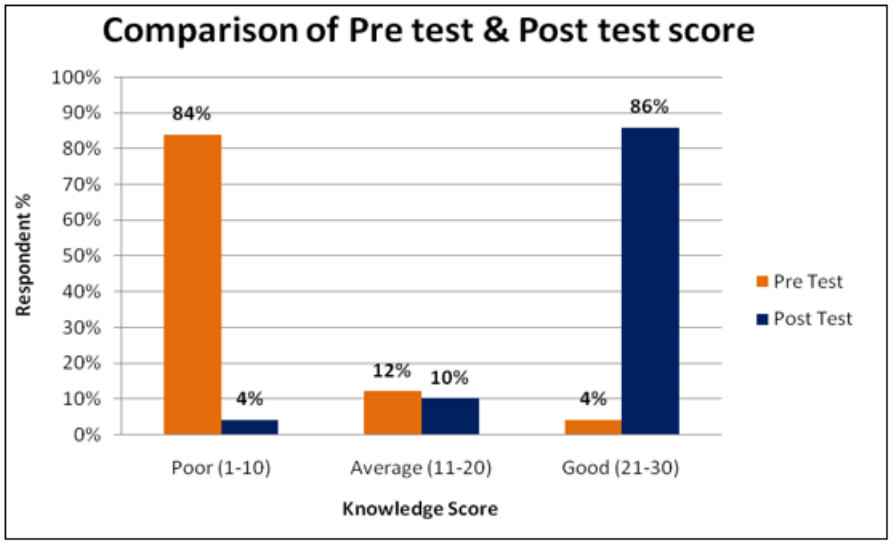

Figure 1: Bar Diagram Showing Frequency and Percentage Distribution of Respondents on Pre- Test & Post Test Knowledge Level on Prevention of Dengue

3. Discussion

Section 1: description of demographic characteristics of students

Majority of students 21 were in the age group of 18 -20 years, 29 were in the age group of >20 years, Most of students 41 were male and only 9 were female, Majority of student's family member 35 not related to were in the medical field and 15 students family member were in medical field, Majority of students 6 have previous knowledge about dengue fever prevention based management and 44 have not, Majority of students 35 live in nuclear family and 15 live in joint family, Majority of students 35 belongs to rural area and 15 belongs to urban area, Majority of students 40 from middle class and 10 from lower class, Majority of students 45 are Hindus and 5 are Muslims.

Section 2: Description the pre-test knowledge Majority of [42(84%)] of student had poor knowledge,6 (12%) students had average knowledge,2 (4%) students had good knowledge

Section 3: Description of the post-test knowledge of student regarding dengue fever prevention: Majority of [43(86%)] of students had good knowledge,5 (10%) students had average knowledge,2 (4%) students had poor knowledge.

Section 4: Determine the effectiveness of planed teaching program on knowledge of dengue fever prevention: Mean value of pre-test is 8.4 and standard deviation is(SD +_3.96),The mean value of post-test is 24.08 and standard deviation is(SD +_4.62),Post-test mean score was higher than the pre-test mean scores; the "t" value is 0.029.

Section 5: description of knowledge score with respected to the selected demographic variables of students: There was some association found between knowledge score and selecteddemographical variables.

Section-6 Testing of Hypothesis

H1: The null hypothesis H1 stated in the study is rejected since there was significant change found between the pre-test (8.14) and post- test (24.08) knowledge mean score on prevention of dengue fever among GNM 1st year student at ($p<0.02$) level. Hence the stated null hypothesis H1 is rejected since there was a significant improvement in knowledge score of students after administration of STP.

H2: There will be some significant association between post-test knowledge score of GNM 1st year students with their selected demographic variables.

The investigator partially accept the stated null hypothesis H2 since there is a statically significant association between four variable i.e., gender, previous knowledge, socio economic status, religion and its knowledge score but accepts for all other demographic variable such as age, family member in medical field, family type and residence as there was no significant association with knowledge score.

4. Conclusion

Majority of student have poor knowledge score in pretest regarding dengue fever prevention, After the intervention majority students have good knowledge, There is the teaching plan was effective, There is some association between knowledge and students socio demographical variables. About 42 (84%) students had poor knowledge regarding Dengue fever prevention. The overall knowledge score mean percentage was 8.14% in pre test and post test mean percentage was 24.8%,SD of pre test 3.96 & post test was 4.62. Chi-square analysis indicated significant association between post test knowledge scores. The structured teaching program significantly improved the knowledge of first year GNM students regarding the prevention of dengue fever. Future studies could explore the longterm retention of this knowledge and its application in real world scenario.

5. Implication

The results of this study have scope on nursing practice, nursing education and nursing research. SUMMARY:

This chapter deal with the summary of study, major finding conclusion, limitation nursing education nursing administration and nursing research have been stated, followed by its major findings and conclusion this chapter and with suggestion and recommendation for further research in field of prevention Dengue fever.

The present study was undertaken as an attempt to find out knowledge of nursing students regarding prevention of dengue fever and to find out the relationship with demographic variables at GNM 1st year students of health and hygiene education institute at Alwar. The pilot and main study conducted in the month of January 2024. The review of literature enables the investigator to develop the methodology and conceptual framework for the study and plan for data analysis. The conceptual framework adopted was based on general system theory. Sample consist of 50 students and data collection procedure was structured questionnaire. The analysis of the data was done using descriptive statistics like number, percentage, mean standard deviation, percentage mean and inferential statistics method such as 't' test.

The significant findings of the study are as follows: -

- 84% of the selected subjects were having poor knowledge, 12% were having average knowledge & 4% have good knowledge regarding prevention of dengue fever in pre - test.
- 4% of the selected subjects were having poor knowledge, 10% were having average knowledge & 86% have good knowledge regarding prevention of dengue fever in post - test.
- The 't' value was found to be 2.98
- First and foremost I thank God Almighty for the copious grace and blessings that He had

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References

[1] Suryagantha A.H. 2009, community medicine with recent advances, Jaypee Brothers Medical publishers Ltd.
[2] Sharma Suresh K 2012 Nursing research and statistics, Elsevier publication.
[3] Rao Kasthuri sundef 2012, An introduction to community health nursing, Ecumenical Book Services, II Edition.
[4] Amar, Taksande, January 19, 2013, Knowledge, attitude and practice of Dengue fever in rural area of central India", JNME,sawangi, wardha, India,.
[5] Mahajan B.K, 2010 Methods in biostatistics, Jaypee Brothers Medical publishers (p) Ltd, VII Edition.