

A Pre - Experimental Study to Assess the Effectiveness of Planned Teaching about Knowledge Regarding Dengue Fever and its Prevention among High School Students in Selected Rural Area

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Abstract: Background of the study: Dengue fever is a mosquito - borne infection that causes a severe flulike illness and, sometimes, potentially lethal complications such as the dengue hemorrhagic fever and the dengue shock syndrome. It is caused by the dengue virus; a member World health organization reported that each year millions of cases of dengue fever occur mostly among children and young adults of the Flaviviridae 1 family, of which there are four different serotypes dengue 1, 2, 3 and 4. Dengue infection transmitted by *Aedes aegypti* is endemic in India. Environmental changes and lack of awareness result in increase in transmission of dengue infection and rise in dengue outbreaks. Research statement: "A pre - experimental study to assess the effectiveness of planned teaching about knowledge regarding dengue fever and its prevention among high school students in selected rural area. Objective: The objective of the study is to assess the effectiveness of planned teaching about knowledge regarding dengue fever and its prevention among high school students in selected rural area. Sample Size and Sampling Technique: The sample size of the study was 80 by using non - probability convenient sampling technique, data was collected by using structured knowledge questionnaire. Result: The finding of the study is pre - test score was, 85% of the subjects had average level of knowledge score and 15% had good level of knowledge score. post - test knowledge score was, 6.25% of the subjects had good level of knowledge score, 83.75% had very good and 10% had excellent level of knowledge score. The study report that the result regarding level of knowledge regarding dengue fever and its prevention the subjects in pre - test were poor and after the implementation of the planned teaching post - test score increased. Conclusion: The conclusion of the study was knowledge of target population was significantly improved after receiving information in the form of planned teaching regarding dengue fever and its prevention.

Keywords: Effectiveness, planned teaching, knowledge, dengue fever, prevention high school students.

1. Introduction

"The only purpose for which power can be rightly exercised over any member of a civilized community against his will is to prevent harm to others."

- John Stuart Mill

Health is a fundamental human right and a worldwide social goal that the health is essential basic human need to be satisfied to improve the quality of life. Good health is a quality of life resulting from total functioning of the individual that empower him to achieve personal and social satisfaction. Individual surrounding environment is very important for good health. Therefore, it must be ensured that it collects and clears the garbage regularly.

Communicable diseases are the major health problem of India. The communicable diseases are transmitted through water, air, food and vector etc, among these vectors borne diseases are one which are transmitted by insects. The vector may be mechanical or biological.

Dengue is an acutely infectious mosquito borne viral disease characterized by episodes of "Saddle back" fever muscle and Joint pain, accompanied by an initial erythema and a terminal rash of varying morphology. Dengue fever is primarily transmitted by *aedes aegypti* and *aedes albopictus*

or the Asia tiger mosquito by a human mosquito human transmission cycle. It is a life threatening fever. Incubation period is usually 5 to 6 days though it may vary from 3 to 15 days after the bite by the mosquito Symptoms beginning showing high fever, headache, vomiting, muscle and joint pains, typical after 3 to 15 days of infection. Recovery generally takes 2 to 7 days. In a small proportion of cases the disease develops into the life threatening dengue hemorrhagic fever, resulting in bleeding, low levels of blood platelets and blood plasma leakage or into dengue shock syndrome where dangerously low blood pressure occurs.

Problem Statement

"A pre - experimental study to assess the effectiveness of planned teaching about knowledge regarding dengue fever and its prevention among high school students in selected rural area.

Objectives of the study

A) Primary Objective

To assess the effectiveness of planned teaching about knowledge regarding dengue fever and its prevention among high school students in selected rural area.

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B) Secondary Objectives

- 1) To assess the existing knowledge regarding dengue fever and its prevention among high school students in selected rural area
- 2) To evaluate the effectiveness of planned teaching about knowledge regarding dengue fever and its prevention among high school students in selected rural area.

Primary Hypothesis

H0: There is no significant difference between pre - test and post - test knowledge score regarding dengue fever and its prevention among high school students which is measured by structured questionnaires at $p \leq 0.05$ level of significant.

H1: There is significant difference between pre - test and post - test knowledge score regarding dengue fever and its prevention among high school students which is measured by structured questionnaires at $p \leq 0.05$ level of significant.

2. Review of Literature

In the present study review of literature is organized under the following heading.

- 1) Review of literature related to prevalence and incidence rate regarding dengue Fever.
- 2) Review of literature related to knowledge regarding dengue fever.
- 3) Review of literature related to prevention regarding dengue fever.
- 4) Review of literature related to effectiveness of planned teaching regarding dengue fever.

A cross sectional study was conducted on knowledge awareness and practices regarding mosquito borne diseases among people at Jalna, Maharashtra in 2018. The objectives of the study was to study the awareness, attributes and practices about mosquito borne diseases in urban areas of Jalna, Maharashtra and explore various myths about mosquito borne diseases. The sample sizes of the study was 877 by using simple random sampling technique, data was collected by using structural knowledge questionnaire. The result showed that we have conducted study among 877 people from various areas of Jalna urban. 71% people said that, mosquito bite in evening time, it was observed that 88% people have knowledge about mosquito egg laying habitat and more than 50% people depended on artificial methods for precaution against mosquito bite. 51% people do not visit government department related to mosquito borne diseases while only 30 % people know the importance of dry day celebration. Conclusion of the study was there is a need to make people more aware about preventive measures and practices, thus it could help in controlling outbreak of diseases. Escalated efforts should be made to enhance public awareness.⁵⁰

3. Research Methodology

Research Approach: Quantitative research approach.

Research Design: A pre - experimental one group pre - test and post - test research

Sample: In this study sample, Where high school students of 8th and 9th standard who were available during the period of data collection.

Sample Size: 80 High school students in rural area who were available during the period of data collection

Sampling Technique: The sampling technique used in the study was non - probability convenient sampling.

Tool for Data Collection

Structured knowledge questionnaire was prepared of data collection from the high school students who are studying in high school.

Development of the Tool

Development of tool was based on research study for the collection of data structured knowledge questionnaire was used in research study. A structured knowledge questionnaire was formulated after reviewing of literature. There were 30 questions in structured knowledge questionnaire.

4. Data Analysis**Analysis of Effectiveness of Planned Teaching Programme on Knowledge Regarding Dengue Fever and its Prevention among Subjects in Selected Rural Area**

This table no 6 shows the comparison of pre - test and post - test knowledge scores of subjects regarding dengue fever and it's prevention. Mean, standard deviation and mean difference values were compared and student's paired "t" test was applied at 5% level of significance. The tabulated value for $n=60 - 1$ i.e. 59 degrees of freedom was 2.00. The calculated "t" value i.e. 42.11 was much higher than the tabulated value at 5% level of significance for overall knowledge score of subjects which is statistically acceptable level of significance. Hence it was statistically interpreted that the planned teaching programme on knowledge regarding dengue fever and it's prevention was effective. Thus the H1 is accepted and H0 is rejected.

Table 6: Significance of difference between knowledge score in pre and post - test of subjects $n=80$

Overall	Mean	SD	Mean Difference	t - value	p - value
Pre test	11.12	1.35	10.48±2.22	42.11	0.0001 Sp<0.05
Post test	21.61	2.15			

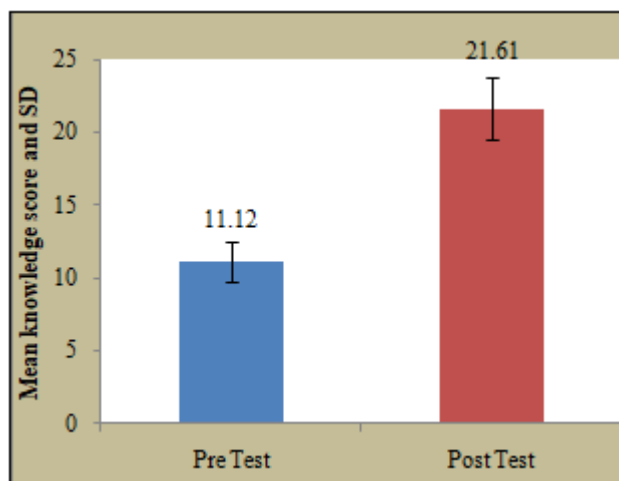


Figure 12: Significance of difference between knowledge score in pre and post - test of subject

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5. Conclusion

After the detailed analysis, this study leads to the following conclusion Planned teaching on dengue fever and prevention was found to be effective in improving the knowledge of subjects. It did not show any association in relation to their selected demographic variables. Hence, based on the above finding, it was concluded undoubtedly that the written prepared material by the researcher in the form of planned teaching helped the subject to improve their knowledge regarding dengue fever and prevention.

6. Recommendations

- 1) Formal education programmes should be conducted in all primary health centers, sub centers, anganwadi, high school etc. regarding dengue fever and its prevention.
- 2) The study can be replicated on large scale on high school students and on various settings, so that findings can be generalized to a large population.
- 3) Such studies can be carried out using other teaching strategies like video assisted teaching, computer - assisted instruction on dengue fever.
- 4) Experimental studies can be carried on effectiveness of structured teaching programme on knowledge regarding prevention of dengue fever and its prevention.

7. Summary

A developing country like India carries the major burden of communicable diseases especially those caused by sub - standard living and environmental condition. The main aim for conducting the study was to make subjects aware about dengue fever and its prevention to reduce health problems of people. For this purpose health programmes at community level to create awareness would be helpful. Because of this, people will be able to prevent the health problems regarding vector borne diseases.

References

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