A study to assess the effectiveness of pamphlet on dengue among people of Viraj Khand Gomti Nagar
Lucknow Uttar Pradesh

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Abstract

Background: Dengue fever is an acute, infectious, commonest arbo viral disease cause by dengue virus. Dengue virus is member of flavo virus group. Dengue fever transmitted from person to person by the bite of infected, female aedes mosquito, clinically it is characterized high fever, headache, body ache, sever joint and muscular pain. Antiviral drugs and vaccines that are currently under development could also an important contribution to dengue control in the future.

Method: An evaluative research approach was adopted for the study. Pre-experimental design (one group pre-test and post-test design) conducted on 60 people of Viraj Khand, Gomtinagar, Lucknow. Sample was selected on the basis of non-probability purposive sampling technique. The data collection was done by conducting pre-test with structured knowledge questionnaire regarding Dengue fever among selected people of Viraj Khand than after 7 days interval post-test was conducted with same structured knowledge questionnaire.

Results: Data was analyzed and interpreted by using both descriptive and inferential statistics. The knowledge score test, indicates that 45 (75%) people of Viraj Khand have good knowledge score and 15 (25%) had average knowledge score after administration of pamphlet on dengue.

Conclusion: The study findings revealed that the people of Viraj Khand Gomtinagar, Lucknow did not have 100% improvement in knowledge regarding dengue fever they required further education and information because all of them to enhance their knowledge. There was a significant increase in the knowledge of the subject after introduction of pamphlets the mean pre test value is (12) the mean post test value is (27.31) which indicates a significant increase in knowledge of people regarding dengue fever the study shows there was no significant association between pretest knowledge score and socio demographic variables.

Keywords: Assess, effectiveness, knowledge, prevention, pamphlet, dengue fever

Introduction

Dengue fever is an acute, infectious commonest arbo viral disease, caused by dengue viruses transmitted from person to person by the bite of infective female aedes mosquito [1]. Clinically it is characterized by high fever, headache, and body ache, severe joint and muscular pains [2].

Vaccines or antiviral drugs are not available for dengue viruses; the only effective way to prevent epidemic dengue fever/dengue hemorrhagic fever is to control the mosquito vector, aedes aegypti and prevent its bite [3]. It is common among young children and adults [4]. It is more among men then among women.

In India dengue death rates are statistically greater than other affected areas [5]. Highest statistics in 2010 reported that in Delhi confirmed dengue cases were 5837 and the reported death were 8 and in UP confirmed dengue cases were 496 and the reported death were 8. In 2011 dengue cases were reported in Karnataka 206 and death are 3 [6]. Dengue is tropical disease affecting 110 countries throughout the world and placing over 3 billion people at risk of infection [7].

According the WHO 70 to 500 million persons are infected every year including 2 million who develop hemorrhagic form and 20000 who die [8].

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Objectives

- To assess the existing level of knowledge regarding dengue fever among the people of Viraj Khand Gomtinagar, Lucknow.
- To develop and present pamphlet on dengue fever among the people of Viraj Khand Gomtinagar, Lucknow.
- To evaluate the effectiveness of pamphlet on dengue fever among the people of Viraj Khand Gomtinagar, Lucknow.
- To find out association between pretest knowledge scores with their selected socio-demographic variables.

Hypothesis

- $H_1$: there is a significant difference between the pretest and posttest scores of people.
- $H_2$: There is a significant association between the pretest knowledge scores with their selected socio-demographic variables.

Assumptions

In this study the researcher assume that-

- People of Viraj Khand Gomtinagar may have some knowledge regarding dengue fever its prevention.
- People of Viraj Khand Gomtinagar will be able to know about dengue fever and its prevention. It is necessary to reduce the risk of fever and prevent the Infection.
- The pamphlet will enhance the knowledge regarding dengue fever and its prevention.

Delimitations

The study is delimited to

- The study is delimited to the people of Viraj Khand Gomtinagar, Lucknow.
- One group pre test and post test design.
- The study is delimited to people who are available at the period of study.
- Knowledge questionnaire is used for data collection.

Methods and Material

Research Approach: quantitative evaluative research approach using the pretest and posttest design was adopted.

Research design: pre-experimental one group pre-test and post-test research design.

Setting: study was conducted in Viraj Khand Gomtinagar, Lucknow.


Sample size: 60 peoples of Viraj Khand Gomtinagar.

Sampling Technique: Purposive sampling technique was used.

Inclusion criteria: In this study inclusive criteria were:-

- Peoples of Viraj Khand Gomtinagar, Lucknow (U.P.).
- Who are willing to participate in the study

Exclusion criteria

In the present study exclusion criteria were

- People who were
  - Non cooperative to participate in the study
  - Who are not available at the time of study

Data collection tool: Tool consists of 2 parts-

Section I- Socio-demographic data: Age, sex, Previous Educational status, Religion of the participant, Occupation, Monthly income in family, type of family and source of information pamphlet.

Section II- Structured knowledge questionnaire: Structured Knowledge Questionnaire includes 30 Multiple Choice Questions regarding dengue fever and its prevention.

Score Interpretation

Knowledge items score 1 was awarded for each correct response and 0 for wrong response in all items. According to the scores attained the following criterion of interpreting the scores was developed.

Reliability

Reliability of the tool was tested for reliability by administering the structured knowledge questionnaire. The reliability was established by using spearman brown split-half technique and it is found to be $r = 0.437$, which indicates the tool was reliable.

Study Period: This study was conducted by the researcher from March 2022 to June 2023

Ethical clearance

- This research was conducted after an institutional review board approval was received from KGMU (Ref. code: 91st ECM IID-a/P3)
- Written formal permission will be obtained.
- Informed consent will be obtained from the participants who enrolled for the study.
- Confidentiality and anonymity of the subject will be maintained.

Data analysis

Descriptive statistic such as frequency & percentage was used to analyze the socio demographic variables. Mean, Mean percentage and S.D. was used to assess the level of knowledge regarding care of neonates undergoing phototherapy. In inferential statistic chi-square $X^2$ used to determine the association of pretest level of knowledge scores with selected socio-demographic variables.

Results

Frequency and percentage distribution of peoples according to age in years (fig. no.1) shows that in the selected sample, the distribution of frequency according to their age, 23-30 years (41.67%), 21 – 23 years (33.33%), 19-20 years (16.67%) & 17-18 years (8.33%). Frequency and percentage of people according to gender (fig. no. 2) shows that selected sample the distribution of frequency according to the gender female 40 (66.67%) & male 20 (33.33%). Frequency and percentage distribution of population according to the religion (fig no. 3) reveals that the population 25 (41.67%) belongs to Hindu, 20 (33.33%) of
population is Muslim, 10 (16.67%) belongs to Christian & 5 (8.33%) belong to sikh. Fig. no. 4 shows that majority of occupation is housewife 25 (41.66%), government employee 15 (25%) private employee 10 (16.67%) agriculture 10 (16.67%). Fig. no. 5 reveals that majority 20 (33.33%) having income Rs 12000 & above 18 (30%) having income Rs 8000, 12 (20%) having income Rs 6000, 10 (16.67%) having income Rs 10000. Fig no. 6 shows that 40 (66.67%) belongs to nuclear family and 20 (33.33%) belongs to joint family.

![Fig 1: Percentage distribution of people according to their age in year](image1)

![Fig 2: Percentage distribution of people according to gender](image2)

![Fig 3: Percentage distribution of people according to the religion](image3)
Fig 4: Percentage distribution of people according to their occupation

Fig 5: Percentage distribution of people according to their family income per month

Fig 6: Percentage distribution of people according to the type of family

Table 1: Comparison of pre-test and post-test level of knowledge scores

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Pre-test Score</th>
<th>Post-test Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>66.7%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Average</td>
<td>33.3%</td>
<td>25.00%</td>
</tr>
<tr>
<td>Good</td>
<td>0.00%</td>
<td>75.00%</td>
</tr>
</tbody>
</table>
Discussion
Our study finding shows that majority 78.7% people were from 23 – 60 Years of age and 66.00% were female, 73.3% were Hindu, 60% were from government employee, 46.6% had above the 12000 monthly income and 80% had no source of information. Table no. 2 suggested that pretest score shows that 66.6% people had poor knowledge and 33.3% had average knowledge and none of them have good knowledge regarding dengue fever and posttest score shows that 0% people had poor knowledge, 25% had average knowledge and 75% people had good knowledge score after giving the pamphlet on dengue fever. Table no. 3 shows that the association between pretest knowledge of people with demographic variables statistically tested by applying chi-square and all the variables were found not significant.

Limitations
A few limitation of study are listed below
- The study was confined to only 60 people of Viraj Khand Gomti Nagar Lucknow
- The study was limited to one group pre test and post test design.
- The study did not used a control group
- The investigator had no control over the event that took place between the pretest.
- Limited time available for data collection
- Structure knowledge questionnaire was used for data collection.

Conclusion
It was concluded that study was effective. Comparison between pretest and posttest shows that pamphlet on dengue fever was effective and no association between the pretest knowledge score regarding prevention of dengue fever among people of Viraj Khand with age, gender, educational status, occupation, family income, religion and type of family.

Declarations
The author declared no potential conflicts of interest with respect to the research, authorship and publication of this article.

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References

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