A Study to Assess the Effects of Educational Intervention Regarding Nipah Virus Infection Among Bachelor Level Nursing Students

Mukesh Kumar Rangari

Vice principal, University College of Nursing R.K.D.F. University Bhopal, Madhya Pradesh, India

ABSTRACT:

Background of the study: Bachelor level nursing students have less knowledge on Nipah Virus. Nipah virus (NiV) infection is a zoonotic disease. The natural host of Nipah virus is fruit bats of Pteropodidae family. Case fatality of NiV infection ranges from 40-75%. There are currently no vaccines approved for human use. Thus, it is necessary to raise their knowledge level regarding NiV infection. Aims: The main objective of the study to assess the knowledge regarding Nipah virus infection among the nursing students before and after educational intervention.

Methodology: Pre-experimental one group pre-test design was used among 70 nursing students from University College of nursing. Self-administered questionnaire consisting demographic characteristics and knowledge regarding NiV infection was used before and after an educational intervention. Result: Collected data were analyzed by using descriptive and inferential statistics. The result of the study reveals that, in pre-test 64.25% of respondents had inadequate knowledge level 27.14% respondents have moderate level of knowledge and 8.57% respondents had adequate knowledge on Nipah Virus Infection. In Post-test 48.57% respondents had adequate knowledge 41.43% had moderate knowledge and 10% respondents had inadequate knowledge on Nipah Virus Infection.

Interpretation and Conclusion: significant difference was found between the pre-test and post-test knowledge levels among bachelor level nursing students. This study stipulates most of the respondents had inadequate knowledge before educational intervention and all the most of the respondents had satisfactory knowledge after educational intervention. Thus, the study cease that in order to raise the knowledge of nursing students on emerging disease education intervention will be beneficial.

KEYWORDS: Nipah Virus, Niv, Pteropodidae, Educational Intervention, Bachelor Level Nursing Students.

INTRODUCTION

Nipah infection (NiV) is a kind of RNA infection, an individual from the family paramyxoviridae, genus Henipavirus and is identified with Hendra infection that taints horses. It is a zoonotic infection which requires direct contact with a contaminated host for the spread. The normal host of the infection are natural product bats of the pteropodidae family. The brooding time of NiV disease differs from five to 14 days. The casualty rate evaluated by world health organization (WHO) ranges from 40-75.

However, WHO features that this rate may shift contingent upon observation limits associated with the flare-up WHO added NIV contamination to its rundown of "need maladies" prior this year, along with all the more notable condition like Ebola, Zika and SARS. Within 24 hours of disease, the infection influences the focal sensory system and the patient may create trance like state, inside 48 hours the patient may bite the dust or whenever endure will have a huge neurological disorder. NiV contamination in human has a scope of clinical presentation, from
asymptomatic contamination to intense respiratory disorder and fetal encephalitis. NiV is likewise fit for causing sickness in pigs and other local creatures. There is no antibody for either people or creatures. The essential treatment for people cases is serious steady care. A one wellbeing approach that considers people, residential and Peri-local creatures and the earth is required to control the infection affectively.

The current study is focused to assess the knowledge regarding Nipah virus infection among the nursing students before and after educational intervention.

The assessment of the association regarding Nipah virus infection among the nursing students before and after educational intervention and the comparison between pre-test and post-test regarding Nipah virus infection among the nursing students before and after educational intervention is also focused to find out.

The educational Intervention regarding Nipah virus infection among the nursing students before and after educational intervention is also provided.

**HYPOTHESES:**

H0=There will not be significant increase in respondent’s level of knowledge regarding Nipah virus infection after educational intervention.

H1= There will be significant increases in respondent’s level of knowledge regarding Nipah virus infection after educational intervention.

**STUDY VARIABLES:**

**Dependent Variables:** knowledge regarding Nipah Virus Infection.

**Independent Variables:** age, occupation, working experience, educational intervention.

**METHODOLOGY:**

**Research Approach**

Evaluative approach was used to carry out the study.

**Research Design**

One group pre-test design was used.

**Setting**

Study conducted in University College of nursing R.K.D.F. University Bhopal.

**Population**

The population of the present study consists of the bachelor level nursing students who are studying in the university college of nursing at R.K.D.F. University Bhopal Madhya Pradesh.

**Sample**

The sample of the present study consists of bachelor level nursing students studying in the university college of nursing at R.K.D.F. University Bhopal Madhya Pradesh.

**Sample Size**

The sample size of the present study comprises 70 students of bachelor level nursing program.

**Sampling Technique**

Simple random sampling technique was adopted to select the sample.

**Method of Data Collection**

Self-Administered questionnaire was used to collect the data.

**DATA ANALYSIS AND INTERPRETATION OF RESULTS**

**Table 1 Knowledge Score Interpretation**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate Knowledge</td>
<td>&gt;75%(21-30)</td>
</tr>
<tr>
<td>Moderate Knowledge</td>
<td>51-75% (11-20)</td>
</tr>
<tr>
<td>Inadequate Knowledge</td>
<td>&lt;50% (1-10)</td>
</tr>
</tbody>
</table>

**Section – 1**

**Levels of Pre-Test Knowledge Score Among Nursing Students on Nipah Virus Infections**

**Table 2 Levels of Pre-Test Knowledge Score Among Nursing Students on Nipah Virus Infections N=70**

<table>
<thead>
<tr>
<th>LEVELS OF KNOWLEDGE</th>
<th>SCORE RANGE</th>
<th>FREQUENCY (f)</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Knowledge</td>
<td>&lt;50% (1-10)</td>
<td>45</td>
<td>64.25</td>
</tr>
<tr>
<td>Moderate Knowledge</td>
<td>51-75% (11-20)</td>
<td>19</td>
<td>27.14</td>
</tr>
<tr>
<td>Adequate Knowledge</td>
<td>&gt;75%(21-30)</td>
<td>6</td>
<td>8.57</td>
</tr>
</tbody>
</table>

The above table depict that among 70 bachelor level nursing students, the majority of respondents 64.25% had inadequate knowledge whereas 27.14 had moderate level of knowledge and only 8.57% respondents had adequate...
knowledge on Nipah Virus infection. Figure: levels of pre-test knowledge score among bachelor level nursing students on Nipah Virus infections.

Section – 2

LEVELS OF POST-TEST KNOWLEDGE SCORE AMONG NURSING STUDENTS ON NIPAH VIRUS INFECTIONS

![Pre-test knowledge score on Nipah virus infection](image)

Figure 1 Levels of post-test knowledge score among nursing students on nipah virus infections.

**Table 3 Levels of knowledge**

<table>
<thead>
<tr>
<th>LEVELS OF KNOWLEDGE</th>
<th>SCORE RANGE</th>
<th>FREQUENCY (f)</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Knowledge</td>
<td>&lt;50% (1-10)</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Moderate Knowledge</td>
<td>51-75% (11-20)</td>
<td>29</td>
<td>41.43</td>
</tr>
<tr>
<td>Adequate Knowledge</td>
<td>&gt;75% (21-30)</td>
<td>34</td>
<td>48.57</td>
</tr>
</tbody>
</table>

The above table depicts that among 70 bachelor level students, the majority of respondents 48.57% had adequate knowledge whereas 41.23% had moderate knowledge and 10% respondents had inadequate level of knowledge.

![Post-test knowledge score on Nipah virus infection](image)

Figure 2 Levels of post-test knowledge score among bachelor level nursing students on Nipah virus infections.

Section – 3

COMPARISON OF PRE-TEST AND POST-TEST KNOWLEDGE SCORE AMONG NURSING STUDENTS ON NIPAH VIRUS INFECTIONS

Table 4 comparison between pre-test knowledge and post-test knowledge on Nipah virus Infection among bachelor level nursing students.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>INADEQUATE KNOWLEDGE</th>
<th>MODERATE KNOWLEDGE</th>
<th>ADEQUATE KNOWLEDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQUENCY</td>
<td>%</td>
<td>FREQUENCY</td>
<td>%</td>
</tr>
<tr>
<td>PRE-TEST KNOWLEDGE SCORE</td>
<td>45.64.</td>
<td>19</td>
<td>27.14</td>
</tr>
<tr>
<td>POST-TEST KNOWLEDGE SCORE</td>
<td>7</td>
<td>10</td>
<td>29</td>
</tr>
</tbody>
</table>

![Comparison of pre-test and post-test knowledge score of bachelor level nursing students on Nipah Virus Infection](image)

Figure 3 Comparisons of pre-test and post test knowledge score of bachelor level nursing students on Nipah Virus Infection.

DISCUSSION

1. To assess the knowledge regarding Nipah virus infection among the nursing students before and after educational intervention.

The results of pre-test of score depict that 64.25% respondents had inadequate knowledge regarding about Nipah virus infection.

2. To assess the association regarding Nipah virus infection among the nursing students before and after educational intervention.

From the results of our study, we found that the knowledge level of the bachelor level nursing students in pre-test is inadequate i.e. 64.25% respondents had inadequate knowledge and 27.14% of the respondents had moderate knowledge, but after the educational intervention regarding Nipah Virus Infections, post-test revealed the increased knowledge level i.e. 48.57% of the respondents had adequate knowledge level and 41.43% respondents...
had moderate level of knowledge. This shows that educational intervention regarding Nipah Virus Infection was effective for them.

3. **To provide educational intervention regarding Nipah virus infection among the nursing students before and after educational intervention.**

The researcher collected material regarding Nipah Virus Infections for education intervention from various resources like Books, Journals, Magazines, Newspaper and Internet and then the materials were refined and organized and it was validated by the expertise then slides were prepared for educational intervention.

**RECOMMENDATION**

- Knowledge regarding emerging disease should be provided to the nursing students are nurses periodically.
- Mass awareness on Nipah virus infection is required throughout the nursing profession.
- Further research studies are needed to be conducted regarding Nipah Virus infection among various groups using large sample.

**CONCLUSION**

Nipah infection (NiV) is a kind of RNA infection, an individual from the family paramyxoviridae, genus Henipavirus and is identified with Hendra infection that taints horses. It is a zoonotic infection which requires direct contact with a contaminated host for the spread. The normal host of the infection are natural product bats of the pteropodidae family. Result of this study stipulates most of the respondents had inadequate knowledge before educational intervention and all the respondents had satisfactory knowledge after educational intervention. Thus, the study ceases that in order to raise the knowledge of nursing students on emerging disease education intervention will be beneficial.

**REFERENCES:**


6. Miller K. Nipah is rare, but infectious disease experts are keeping an eye on it. 2018 May


8. WHO. Nipah virus infection. Emergencies preparedness, response.


