A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PREVENTION AND CONTROL OF H1N1 FLU AMONG ANGANWADI WORKERS IN SELECTED ANGANWADI CENTERS IN NAVSARI, GUJARAT.

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ABSTRACT

Respiratory tract infections are one of the common seasonal morbidities seen among children as well as adults. H1N1 Swine flu is a subtype of influenza A virus (a communicable viral disease), which causes upper and potentially, lower respiratory tract infections in the host it infects, resulting in symptoms such as nasal secretions, chills, fever, decreased appetite, and possibly lower respiratory tract disease. Amid the Covid-19 pandemic, the country has reported a rise in cases of influenza H1N1. The purpose of this research study is to know the level of knowledge of Anganwadi workers in prevention and control of swine flu and educate them to prevent the surge in cases, hence improving the quality of life. Anganwadi workers are the health care workers who are in direct contact with the people in the community and they can have an effective influence over people in regards to prevention and control of disease. The research design used for this study was a quasi-experimental design with an evaluative and educative approach aimed to evaluate the effectiveness of a structured teaching program on knowledge regarding prevention and control of swine flu among Anganwadi workers in selected Anganwadi centers in Navsari. One group pretest- posttest design was selected for this study. A total number of 60 Anganwadi workers who met in the inclusion criteria were selected by using purposive sampling technique. The pretest and post test score comparison showed that the STP was effective to increase the level of knowledge among the Anganwadi workers. A paired ‘t’ test result(36.67*) indicated a statistically significant difference between the pre-test and post-test knowledge score with a significance at the level of 0.05.

Keyword: HIN1 Flu, Swine flu, Anganwadi workers, Prevention and control of H1N1 Flu

1. INTRODUCTION

H1N1 swine influenza is a common infection in pigs worldwide, and that is why it is also known as swine flu. In 1918, a deadly influenza pandemic caused by H1N1 influenza virus, also known as the Spanish flu, infected approximately 500 million people around the world and resulted in the deaths of 50 to 100 million people (3% to 5% of the world population) worldwide, distinguishing it as one of the deadliest pandemics in human history. In 2009, a new strain H1N1 swine flu spread fast around the world among humans, and the World Health Organization (WHO) labelled it a pandemic. [1] Since the 2009 H1N1 pandemic, the (H1N1) pdm09 flu virus has circulated seasonally causing significant illnesses, hospitalizations, and deaths. It is estimated that 0.001 percent to 0.007 percent of the world’s population died of respiratory complications associated with (H1N1) virus infection during the first 12 months the virus circulated. On August 10, 2010, WHO declared an end to the global 2009 H1N1 influenza pandemic. However, H1N1 virus continues to circulate as a seasonal flu virus, and cause illness, hospitalization, and deaths worldwide every year. [2]

Since swine flu and Covid-19 have a similar disease presentation, infectious disease experts have advised doctors to think of H1N1 if a patient doesn’t respond to Covid-19 treatment. Recently there was an evidence of a patient in his 30s, recovered from Covid-19 had got re-infection
within 90 days and tested positive for H1N1 flu [3]. According to NCDC, February 2020 data, there were 884 reported cases and 14 deaths. Health workers and persons with comorbid conditions (such as lung disease, heart disease, liver disease, kidney disease, blood disorders, Diabetes) and immuno-compromised persons are at higher risk, says the Ministry of Health and Family Welfare. [4]. Two cases were tested positive for swine flu recently in Bhavnagar, Gujarat, who had symptoms for the last few days but had tested negative for Covid-19. [5]

There are a few studies which have been conducted to assess knowledge regarding prevention and control of Swine Flu among Anganwadi workers. However, these studies have revealed that the Anganwadi workers have little knowledge regarding Nursing management of Swine Flu and there should be steps taken to educate them about this and thereby improving the quality of nursing care.

2. OBJECTIVES OF THE STUDY

- To assess the existing knowledge of prevention and control of Swine Flu among Anganwadi workers in selected Anganwadi centres in Navsari.

- To evaluate the effectiveness of Structured Teaching Program on knowledge regarding prevention and control of Swine Flu among Anganwadi workers in selected Anganwadi centres in Navsari.

- To find the association between the knowledge and selected demographic variables such as age, religion, educational status, marital status, type of family, years of experience and previous knowledge.

3. HYPOTHESIS

The hypothesis will be tested at 0.05 level of significance.

H1: There is a significant increase in the level of knowledge on prevention and control of Swine Flu among Anganwadi workers after Structured Teaching Program.

H2: There will be a significant association between the knowledge level of Anganwadi workers with the selected demographic variables such as age, sex and economic status.

4. ASSUMPTIONS

- Anganwadi workers will have inadequate knowledge regarding causes, prevention and management of swine flu.

- Structured teaching programme on prevention and control of swine flu will promote health of people and better prevention.

- Anganwadi workers are best conveyors of health information to people and community.

5. RESEARCH METHODOLOGY

5.1. Research Approach:

The research approach adopted for this study is evaluative aimed to evaluate the effectiveness of a structured teaching program on knowledge regarding prevention and control of swine flu among Anganwadi workers in selected Anganwadi centers in Navsari.

5.2. Research Design:

One group pretest- posttest design was selected for this study.

5.3. Population

The target population for this study was Anganwadi workers in selected Anganwadi centers in Navsari.

5.4. Setting of the Study

This study was conducted on Selected Anganwadi centers in Navsari.

5.5. Sample

Anganwadi workers in selected Anganwadi centers in Bhopal who meet the inclusion criteria.

5.6. Sample size

A total number of 60 Anganwadi workers who met in the inclusion criteria were selected by using purposive sampling technique.

5.7. Sampling Technique

Purposive sampling technique was used to select the sample.
6. DESCRIPTION OF THE TOOL
To meet the objectives of the study the tool was developed by the investigator in two parts.

Part – I
It consists of 7 items pertaining to the demographic variables of the respondents such as Age, Religion, Education, Type of family, Marital status and Years of experience and previous knowledge of the Anganwadi worker.

Part –II
It consists of 30 items pertaining to prevention and control of swine flu.
Each correct response was assigned a score of one and a wrong response a score of zero.

7. DATA ANALYSIS
The plan for data analysis was as follows;

❖ Frequencies and percentages to be used for analysis of demographic data
❖ Calculation of mean standard deviation of pre-test and post test scores
❖ Application of paired t test to test whether there is significant difference in the mean knowledge score of pre-test and post-test values at 5% level of significance.
❖ Application of Chi-square test to measure the association between pre-test and post-test knowledge scores and the various demographic variables.

8. RESULTS
Percentagewise distribution of the demographic variables was done. The maximum number of Anganwadi workers 28(46.7%) belongs to 20-30 years, 24(40%) belongs to 31-40 years, 8(13.3%) are above 40 years of age. Most of the Anganwadi workers are Hindu 35(58.3%), Muslim 15(25%) and Christian 10 (16.7%). According to educational status 3(5.00%) are below 10th, 36(60%) had 10th and 21(35%) had completed plus2 and above. 44(73.3%) Anganwadi workers belong to nuclear, 16(26.7%) belong to joint family. Most of the workers are married 38(63.33%), Bachelors 15(25.00%), divorced 3(5.00%) and widower 4(6.67%).

Percentagewise distribution of Anganwadi workers according previous knowledge of swine flu showed that 28(46.7%) of Anganwadi workers had previous knowledge whereas 32(53.3) do not have any previous knowledge.

The Pretest score was evaluated to know the level of knowledge. It was categorized as Inadequate, Moderate, Adequate and the scoring of below 50%, 50-75% and above 75%. The number of respondents who are having inadequate knowledge belongs to 58 and obtained a percentage of 96.7%. Moderate category shows 3.3% with 2 respondents. Workers not having adequate knowledge in regards to prevention and controls of swine flu are evidenced by 0% level of knowledge. Percentage distribution of Mean, SD, Mean % of Pre-test knowledge was done. The Mean, SD and Mean% of the existing knowledge Anganwadi workers on prevention and control of swine flu shows 11.3, 2.21 and 36.7 respectively. The maximum statement is 30 and maximum score is 30.

The Post-test score was evaluated to know the level of knowledge. It was categorized as Inadequate, Moderate, Adequate and the scoring of below 50%, 50-75% and above 75%. The number of respondents who are having adequate knowledge belongs to 24 and obtained a percentage of 40%.Moderate category shows 60% with 36 respondents. Anganwadi workers with inadequate knowledge regarding prevention and control of swine flu are evidenced to 0% level of knowledge. Percentage distribution of Mean, SD, Mean% of Post-test knowledge was done. The Mean, SD and Mean% of the existing knowledge on prevention and control of swine flu among Anganwadi workers shows 21.2, 2.29 and 70.7 respectively. The maximum statement is 30 and maximum score is 30.

Percentage distribution of Level of knowledge – Pre-test and Post-test was done. After the post test, comparison done between the existing knowledge and the present knowledge. In Pre-test, 58 participants are having inadequate knowledge scores a percentage of 96.7%. 2 participants are having Moderate knowledge scores 3.3% and no one is having adequate knowledge. In Post-test, nobody is having inadequate knowledge. About 36 participants scores 60% according to their level of knowledge, which is moderate. 24 participants are having adequate knowledge. They score 40%.
Percentage distribution of Mean, SD, Mean % of pre and post-test knowledge. The domains are Pre-test and Post-test. The range of Pre-test is 7-15 with mean 11.3%, SD 2.21 % and mean % of 36.7%. And the Post test scores range from 15-24 with a mean of 21.2%, SD 2.29% and Mean % of 70.7% respectively. The enhancement range becomes 6-13 with a mean of 10.6%, SD 2.24% and mean % of 33.4%. So, the post-test shows the highest mean % of 70.7%.

Comparison of effectiveness of STP on knowledge with their statistical significance (Through paired t test). Paired t test was calculated, and the t value is 36.67. Here the post-test shows the highest mean % 70.7 with an enhancement of 33.4%. Hence the Hypothesis H1 is accepted and null hypothesis is rejected.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Mean</th>
<th>SD</th>
<th>Mean %</th>
<th>Paired ‘t’ value</th>
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<tbody>
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<td>2.21</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Post Test</td>
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<td>2.29</td>
<td>70.7</td>
<td>36.67*</td>
</tr>
<tr>
<td>Enhancement</td>
<td>10.6</td>
<td>2.24</td>
<td>33.4</td>
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</tbody>
</table>

Table 1. Comparison of effectiveness of STP on knowledge with their statistical significance (Through paired t test) * S- Significant at 0.05 level (P<0.05 level)

Association of effectiveness of STP on knowledge with their demographic variables. Chi-square was calculated to find out the association between the knowledge scores of the nursing students with their demographic variables.

Not significant for age, religion, type of family, marital status and year of experience with Chi square values 0.67, 0.39, 0.56, 0.84 and 2.04 respectively.

There is significant association for educational status and previous knowledge with Chi square value of 10.16 and 5.32 respectively. Thus, the null hypothesis is rejected and H2 is accepted.

**9. CONCLUSION**

The conclusion drawn on the basis of the findings of the study includes:

- Knowledge on Prevention and control of swine flu among Anganwadi workers was inadequate before the administration of STP.
- The STP was effective in increasing the knowledge of Anganwadi workers i.e., overall and in all aspects in the post-test scores were high compared to pre-test scores.
- A paired ‘t’ test result (36.67*) indicated a statistically significant difference between the pre-test and post-test knowledge score on Prevention and control of swine flu for all the knowledge aspects under investigation (p<0.05)

**10. IMPLICATIONS**

**10.1. Nursing Practice**

Nursing professionals working in the community settings can understand the importance of health education on prevention and control measures of epidemics like swine flu Nursing professionals can play the key role in enhancement of knowledge Anganwadi workers on prevention and control of swine flu, which could change the attitude of the total community in the matter of prevention and control of Swine flu.

**10.2. Nursing education**

- As a nurse educator, there are an abundant opportunity for nursing professionals to educate the Anganwadi workers on prevention and control of various communicable diseases as the can play a key role in community health education.
- The study emphasizes significance of short-term in-service education programme for nurses and peripheral health workers related to health education of Anganwadi workers and other peoples like ASHA workers, Midwives etc.

**10.3. Nursing Administration**

- The nursing administrator should take part in making of health policy, development of protocols and standing orders with respect to prevention and control of various epidemics. The nursing administrator should concentrate on 72.
- The proper selection, placement and effective utilization of the nurse in all areas of community practice giving opportunity for
creativity, creating interest and enhance ability in educating the community.

10.4. Nursing Research

The finding of the study shows that majority of Anganwadi workers had lack of knowledge regarding prevention and control of swine flu in the pre-test. Based on this finding the researchers can conduct further studies on awareness and improvement of knowledge of clients regarding swine flu prevention and control on large samples. The study will motivate the beginning researcher and to conduct studies with different variables on large scale.

11. SUMMARY

Today the world is facing many dreadful diseases of respiratory tract, among which one is swine flu. Swine flu caused by H1N1 virus. The H1N1 virus is an influenza virus causing illness in people. The virus is spreading from person to person, as much the same like regular seasonal influenza viruses spread. It is necessary to have adequate knowledge regarding these illness and also differentiate them so as to prevent them at the earliest and promptly decrease the morbidity and mortality rates.

REFERENCES


