

## Original Research Article

## A Study to assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Swine Flu and its Prevention among Higher Secondary Students, Durg

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### Abstract

Disease is the major aspect to make an individual unhealthy. Most of the communicable diseases are infectious hence they can be called as infectious disease. The objectives of the study are to assess the pre-test and post-test knowledge of higher secondary school students regarding swine flu. to assess the effectiveness of structured teaching programme on knowledge regarding swine flu and its prevention among higher secondary school students and finally to find association between pre-test knowledge regarding swine flu with selected socio demographic variable. Hypotheses are there will be a significant difference between pre-test and post-test level of knowledge regarding swine flu among higher secondary school students. There is no significant association between post-test levels of knowledge with selected socio demographic variables. Research approach is Quantitative approach, the research design of the study was one group pre-test post-test research design, Sample and sample size is 60 students of Higher Secondary school students. Simple convenient sampling technique was used to collect data. The overall major finding of the study reveal that the pre-test knowledge level of students are 38.3 % have poor knowledge, 70% have average knowledge and 6.7% have good knowledge regarding swine flu and its preventions and in post-test the level of knowledge is increased. The Chi-square value and table value of students reveals that there is a significant ( $p < 0.05$ ) association of knowledge score with selected demographic variables.

**Keywords:** Effectiveness, Structured Teaching Programme, Knowledge, Swine flu, Prevention

### Introduction

Health is a state of well-being of an individual. It is said that to be healthy, individual should be free from disease [1]. Disease is the major aspect to make an individual unhealthy. In the field of science, diseases are mainly classified into two major groups they are communicable disease and non- communicable disease. Most of the communicable diseases are infectious hence they can be called as infectious disease [2].

The novel influenza A (H1N1) virus was first identified in Mexico in April, 2009 on 11 June 2009. The world health organization (WHO) declared the occurrence of an influenza pandemic since the emergency of the novel influenza A (H1N1) virus in April 2009, the with at least 17, 7000 deaths, soon after the outbreak of H1N1 virus in the united states and Mexico in April 2009 [3], the Government of India started screening people from the affected countries at airports for swine flu symptoms, the first

case of flu in India was found on Hyderabad airport on 13 may 2009 [4].

H1N1 virus was originally referred to as “Swine flu” because laboratory testing showed that many of the genes in this new virus cover to very similar to influenza viruses that normally occur in pigs (swine).The classical swine flu virus ( Influenza type A H1N1 virus ) was first isolated from a pig in 1930 [5].

It has two genes from flu viruses that normally circulate in the pigs of Europe and Asian continents and it has close resemblance with both bird (avian) genes and human genes. Scientists call this a "quadruple reassorting" virus [6].

H1N1 virus enveloped viruses of H1N1 virus are 80 to 120 nm in diameter, 200 to 300 nm long, and may be filamentous. They consist of spike -shaped surface protein. Like all influenza viruses, H1N1 viruses change constantly [7]. Based on the two surface proteins on the surface of influenza viruses,

Hem agglutinin (HA) and Neuraminidase (NA) influenza viruses are further divided into much subtype. There are 16 HA (H1-H16) subtype and 9 NA (N1-N9) subtype known of influenza a viruses [8].

## Objectives

- To assess the pre-test and post-test knowledge of higher secondary school students regarding swine flu.
- To assess the effectiveness of structured teaching programme on knowledge regarding swine flu and its prevention among higher secondary school students.
- To find association between pre-test knowledge regarding swine flu with selected socio demographic variable.

## Hypothesis

**H1:** There will be a significant difference between pre-test and post-test level of knowledge regarding swine flu among higher secondary school students.

**H2:** There is no significant association between post-test levels of knowledge with selected socio demographic variables.

## Research Methodology

**Research Approach:** The approach of research study was an evaluative approach

**Research Design:** Pre-experimental one group pre test-post test Design Population

**Accessible Population:** The accessible population is the students of Govt. Higher secondary school Anjora Durg

**Target Population:** In this study the target population consist of higher secondary school students.

**Setting of the Study:** Govt. Higher Secondary School, Thanoud, Durg.

**Research Sample:** Those who are studying in 11<sup>th</sup> standard of Govt. Higher Secondary School.

**Sample Size:** 60 students who were studying Govt. Higher Secondary School

**Sample Techniques:** The sampling techniques use in this study was non probability, convenience sampling technique.

## Criteria for Selecting the Sample

### Inclusion Criteria

- Students of Govt. Higher secondary school, who are willing to participate in study
- Students belongs to 11th standard of Govt. Higher secondary school, will be selected.
- Students present at the time of data collection.

## Description of Tool

A structured questionnaire will be developed as a tool for data collection. It will consist of the following section.

### Section A

#### Demographic Data

It includes the demographic data such as age, gender, religion, type of family, education, mother's education, father's education, monthly income, source of knowledge and previous exposure to topic.

### Section B

Including 20 multiple choice questions related to Swine Flu and it's prevention.

**Scoring:** The questionnaire contains 20 each multiple-choice questions. Each correct answer carries 1 mark and each wrong answer carries zero (0) mark.

## Criteria for Grading Knowledge Scores

Level of Knowledge	Score	Percentage
Inadequate Knowledge	0-7	0 - 35
Moderately Adequate Knowledge	8-14	40 - 70
Adequate Knowledge	15-20	75 And Above

## Data Analysis and Interpretation

The data was collected from 60 Higher Secondary School students. The collected information was organized, tabulated, analysis, and interpreted by using descriptive and inferential statistics.

The collected information was organized and the results have been organised and presented in following parts.

- **Section I:** Description of demographic characteristics of Students.
- **Section II:** Analysis of pre-test and post-test knowledge regarding Swine flu and its prevention.
- **Section III:** Evaluation of the effectiveness of STP on knowledge regarding Swine Flu and its Prevention, Food habit, Number of children and Source of information.
- **Section IV:** Association of the post-test knowledge level of Hr. School Students with their demographic variables.

## Results

### Section I: Description of demographic characteristics of Students

According to age, majority of students 60 (100%) are in the group of 15 years. According to gender majority of students 56 (93.3%) were females. According to religions majority of students 58 (96.6%) were Hindu. As the type of family, majority of students 38 (63.3%) were belongs joint family. In respective to fathers educational status majority of student’s father were 32 (53.3%) graduate and with mothers educational status majority of student’s mother 28 (46.7%) were had primary education. According to monthly income majority of students 32 (53.3%) were belongs above 8000 / month. With the source of information about swine flu majority of students source 56 (93.3%) were gain knowledge through mass media.

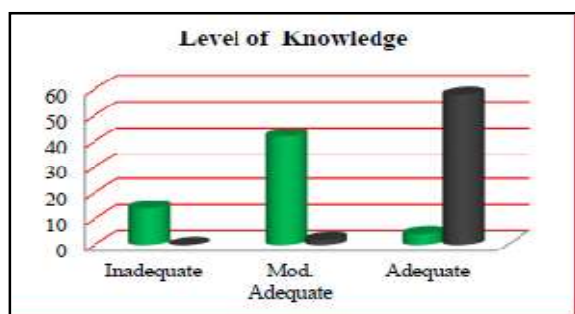
**Section II Analysis of pre-test and post-test knowledge regarding Swine flu and its prevention**

**Table 1:** Level of Knowledge on Swine Flu and Its Prevention among Higher Secondary School Students (N=60)

Group	Inadequate Knowledge		Moderately Adequate Knowledge		Adequate knowledge		Total
	n	%	n	%	n	%	
Pre-test	14	38.3	42	70	4	6.7	60
Post-test	0	0	2	3.3	58	96.7	60

Pre-test knowledge of higher secondary school students 14 (38.3%) had inadequate knowledge, 42 (70%) had moderately adequate knowledge and 4 (6.7%) had adequate knowledge on swine flu and its prevention

In Post-test knowledge score, 1 (3.3%) student had moderately adequate knowledge and 29 (96.7%) had adequate knowledge.



**Figure 1:** Level of Knowledge on swine flu and its prevention

Fig. 1 shows the Level of Knowledge on swine flu and its prevention.

**Table 2:** Mean and Standard Deviation of pre-test and post-test knowledge score N=60

PRE-TEST		POST-TEST	
Mean	Standard deviation	Mean	Standard deviation
9.4	2.47	18.3	1.12

Above table shows that in pre-test, mean was 9.4 and standard deviation was 2.47 and in post-test mean 18.3 and standard deviation was 1.12.

**Section-III Evaluation of the effectiveness of STP on knowledge regarding Swine Flu and its Prevention**

**Table 3:** Significance of difference between pre-test and post-test knowledge score. (N=60)

Df	Paired “t” value	Significance
59	14.64	p>0.05

According to table no 3 shows the effectiveness of Structured Teaching Programme on Swine Flu and its Prevention. The paired “t” value was 14.64 which are the more than the table value which shows significance.  $H_1$  accepted

**Section IV Association of the pre-test knowledge level of Higher School Students with their demographic variables**

There was no significant association found between the selected demographic variable like age, fathers educational status, and previous exposure to topic except gender, religion, type of family, mothers education, monthly income and sources of swine flu related information with their knowledge score at 0.05 level. Hence hypotheses ( $H_2$ ) was accepted

**Nursing Implication**

The scientific and technological developmental is challenged to nursing to keep abreast with new developments continuing education is necessary. Educational programme is major factor on shaping the future of the profession of nursing service. The finding of the study has several implications for nursing service, nursing education and nursing research.

## Nursing Education

Nursing may be defined as a dynamic, therapeutic and educative process in meeting health need of society the present study emphasises that to assess the effectiveness of STP on knowledge regarding Swine Flu and its prevention. In order to educate the patient and community and school it is essential that nurse is competent and have sound knowledge to improve the level of understanding on knowledge of Swine Flu. Strive to make research exciting so that student can be motivated to conduct research activity.

## Nursing Research

Research is a systematic attempt to obtain meaningful answer to phenomena or event through the application of scientific procedure it is objective, impartial, empirical and logical analysis and recovering of controlling observation that may lead to the development of generalisation, principal of theories, resulting to some extent in prediction and control of event of event that may be the consequences or cause of specific phenomena.

The finding of the present study can be utilised by nurse researchers to contribute to the profession to accumulate new knowledge regarding swine flu. Publication and presentation often inhibit rather than support research-based practice. Clearly delineate practice implication of result.

## Conclusion

The above study concluded that structured teaching programme has improved the level of knowledge among high school students on swine flu and its prevention they increased level of knowledge after STP... Hence, the researcher strongly suggests that the nurse midwife should adopt this intervention in their clinical practice to promote the prevention of communicable diseases.

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