



**ORIGINAL RESEARCH PAPER**

**Nursing Science**

**A COMPARATIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING THE PREVENTION OF SWINE FLU AMONG THE URBAN AND RURAL HIGH SCHOOL CHILDREN AT SELECTED SCHOOLS, BANGALORE, WITH A VIEW TO DEVELOP A SELF-INSTRUCTIONAL MODULE**

**KEY WORDS:** knowledge, self-instruction module, prevention, swine flu.

**Professor Kavita Reddy**

Professor/Hod, Department Of Pediatric Nursing, Aditya College Of Nursing, # 12 Kogilu Main Road, Yelahanka Bangalore, Karnataka- 560064.

**Professor Sijo Koshy**

Professor/ Principal, Maruti Institute Of Nursing, Village Danitola, Tehsil Balod, Chhattisgarh State- 491226.

**ABSTRACT**

A comparative study to assess the knowledge regarding the prevention of swine flu among the urban and rural high school children at selected schools, Bangalore, with a view to develop a self-instructional module. **Objectives:** To assess the existing knowledge regarding prevention of swine flu among urban and rural high school children. To compare the level of knowledge on prevention of swine flu among rural and urban high school children and To find out the association between level of knowledge regarding prevention of swine flu with their selected demographic variables. **Material And Method:** The descriptive comparative design was selected to assess the knowledge on prevention of swine flu among 100 high school students (50 urban and 50 rural). The tool used for data collection was structured questionnaire. Collected data was analysed by using descriptive and inferential statistics in terms of frequencies, percentage, mean, standard deviation, t-test and chi-square. **Results:** The majority of the students 87(87%) had inadequate knowledge and very few students 13(13%) had moderate knowledge, none had adequate knowledge regarding prevention of swine flu. The calculated "t" value is found to be significantly difference in the knowledge score of urban and rural high school children. The demographic variables educational status, area of residence, education of father and previous knowledge are significantly associated with knowledge scores of urban high schools' children. **Conclusion:** The knowledge of the swine flu should be imparted through information guidelines, as their level of understanding is quite good, so the investigator felt that school children should have awareness regarding cause, symptoms and preventive strategies through health education.

**INTRODUCTION**

Children were 14 times more likely to be sickened by swine flu than adults 60 and older, the age group that is typically the most at risk for influenza, according to a U.S. study of the disease. Children ages 5 to 14 became ill with swine flu, also known as H1N1, at a rate of 147 per 100,000 people, according to the study of 1,557 confirmed illnesses, including seven deaths, in Chicago from April to July, months when the flu virus usually doesn't spread. The findings were reported today by the U.S. Centres for Disease Control and Prevention in Atlanta.<sup>1</sup>

In November 3, 2018, reported that Bangalore registers most swine flu cases with 17 death cross Karnataka, BBMP area has seen the highest number of cases at 190, followed by Shivamoga with 93 cases. The number of positive cases has seen a sharp rise since September. There has been an average of about 20 cases each day in the last one week and 79 cases in just two days from October 31 to November 2. There were only 39 positive cases of H1N1 from January to August.<sup>2</sup>

A cross sectional study conducted in Science and Commerce College of Valsad city, Gujarat from June-July 2015. Simple random sampling technique used. Total 400 students were randomly selected from both the colleges. Data collection done by using predesigned, pretested, bilingual language (English and Gujarati) semi structured questionnaire. Results shows that 63.18% and 53.73% commerce, 86% and 84.5% science knows causative agent and other name of swine flu respectively and difference is statistically highly significant. More than 60% of science and commerce students reported cough/sneezing as modes of transmission. 57% science and 40% commerce correctly answer symptoms of swine flu. Television (>35%) was major source of information in both groups. The study concluded that although students are aware of swine flu but correct knowledge about swine flu is lacking in both the groups. Knowledge regarding key points such as frequent hand washing, avoiding crowding places, vaccine and treatment availability, which is much important during epidemics and pandemics as precautionary measures, was lacking in both the groups.<sup>3</sup>

Since children are at more risk being involved in groups and

possessing less immunity need for educating the children about flu complications, hand hygiene, respiratory etiquette using proper educational materials enhance compliance and to prevent the occurrence of swine flu. Hence the aim of the study was to create an awareness of swine flu among the school children and help them to prevent this dangerous contagious disease.<sup>4</sup>

A study was carried out in two randomly selected (using random number table) senior secondary schools of Bareilly, Utter Pradesh among 400 students of class 9<sup>th</sup> to 12<sup>th</sup>. A total of 200 students were selected from each school. Almost all the students (97.75%) have heard about of swine flu and are aware of it as a disease entity. Fever was found to be the main symptom while coughing and sneezing were main way of spread of swine flu known to them. About 97% of the student mention use of mask as most effective way to prevent them from swine flu. The study was concluded that Knowledge of availability of medicine was present in less than half of the students. TV was found to be the main source from which they get knowledge (79%), and they are trying to get knowledge (53.2%) of swine flu. Among them, 74% students were taking precaution against swine flu.<sup>5</sup>

**OBJECTIVES**

1. To assess the existing knowledge regarding prevention of swine flu among urban and rural high school children.
2. To compare the level of knowledge regarding prevention of swine flu among rural and urban high school children.
3. To find out the association between level of knowledge regarding prevention of swine flu with their selected demographic variables.

**MATERIAL AND METHODS**

This study made use of comparative descriptive survey design. The populations in the study were high school children studying in 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> standard in selected urban and rural areas. The sample for the study comprised of 50 urban high school children and 50 rural high school children. Using convenient sampling 100 high school children were selected. The data collection for the study was done by structured questionnaire. The tool consisted of demographic variables and knowledge questionnaire on prevention of

swine flu. 3 experts validated the content validity of the tool and were found to be reliable and feasible. The reliability of the tool was established by Brown prophecy formula. A Pilot study was conducted for a period of one week to find out feasibility and practicability of the tool. Data collection procedure was initiated after obtaining permission from principal of the high school. The main study was conducted for the period of 3 weeks. The data collected were analysed and interpreted by using descriptive and inferential statistics. The hypothesis was tested at 5 percent significance and the data obtained are presented in the graphical form too.

### MAJOR FINDINGS OF THE STUDY

#### Findings related to demographic variables

- In urban majority 56% of respondents are female; in rural majority 64% of respondents are female. About 54% respondents are in 9<sup>th</sup> standard and in rural majority 50% are in 8<sup>th</sup> standard. Almost all 90% are resides in urban area and in rural high school 96% are resides in rural area.
- Regard to educational status of father majority 36% of respondents' father had primary education and majority 50 % of respondents' father had primary education. About 50% of respondents' mother had primary education in urban and majority 50% of respondents' mother had no formal education. In urban majority 64% and in rural majority 54% of respondents had previous knowledge on swine flu. In urban majority 42% and in urban majority 38% of respondents had two children. In urban majority 53% and in rural majority 43% of the respondents obtained information from electronic media.

#### Findings Related To Knowledge Scores Of Urban And Rural High School Students Regarding Prevention Of Swine Flu.

- Majority 39(78%) of urban high school students had inadequate knowledge, 11(22%) had inadequate knowledge and no one had adequate knowledge. Considering rural high school majority 48(96%) had inadequate knowledge, 2(4%) had moderate knowledge and no one had adequate knowledge.
- The overall mean percentage knowledge scores of urban respondent were found to be **27.92%** with standard deviation **2.065**. The overall mean percentage knowledge scores of rural respondent were found to be **19.76%** with standard deviation **1.683**.

#### Findings Related To Comparison Of The Knowledge Score Of Rural And Urban High School Children.

The obtained "t" value **5.229** was greater than the table value at 0.05 level of significance. Therefore, "t" value was found to be significant. Hence the research hypotheses stated that there will be a significant difference in knowledge scores of urban and rural high school students regarding prevention of swine flu was accepted.

#### Findings Related To Association Between Knowledge Scores And Selected Demographic Variables.

It is evident that demographic variables such as educational status, area of residence, education of father and previous knowledge are significantly associated with knowledge scores of urban high school children. And remaining demographical variables such as gender, education status of mother and sources of previous knowledge are not significantly associated with knowledge scores of urban high school children.

### NURSING IMPLICATIONS

#### Nursing education:

As a nurse educator, there are abundant opportunities for the professional nurse to educate children and their family regarding prevention of swine flu.

#### Nursing Practice:

Children should develop knowledge and acquire skills to

protect themselves against swine flu infection.

#### Nursing Administration:

In-service education can be conducted for nurses on the detection and reporting of early signs and symptoms of swine flu (H1N1). The administrators should encourage the staffs and students to carry out small project work in different population, so as to find out the factors influencing swine flu.

#### Nursing Research:

The study will motivate the beginning researchers to conduct same study with different variables on a large scale considering individual aspects. The public and private agencies should also encourage research in this field through materials and funds.

### RECOMMENDATIONS

On the basis of findings of the study following recommendations have been made.

- A similar study can be replicated on a large sample to generalize the findings.
- A study can be conducted to find out awareness of swine flu among mother of under-five children.
- Knowledge, practice and attitude regarding prevention of swine flu.

### LIMITATIONS OF THE STUDY

- The study was confined to a specific geographical area i.e., selected urban and rural areas in Bangalore, which imposes limits to any larger generalization.
- The study was limited only to high school children of class 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup>; the groups were small which resulted in reduced power in statistical analysis.
- No standardized tool was available, therefore the researcher prepared a tool for the purpose of this study.
- Only one domain that is knowledge was considered in the present study.

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