

A Study to Assess the Knowledge Level of Staff Nurses Regarding Swine Flu in Annai Hospital Karungal Kanyakumari District Tamilnadu India.

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Abstract—A descriptive study with cross sectional survey approach was undertaken to assess the knowledge of staff nurses on swine flu in selected Annai hospital Karungal. 110 staff nurses were selected by Purposive sampling method and data were collected from them by using structured closed ended questionnaire. Demographic characteristics reveals that 88.18% of Staff were in age group of 20-30 years, 69.1% of them were female 45.45% were diploma degree holders, 43.64% of them had working experience of below one year, 54.55% of staff nurses were working in ICU's and about 85.5% of them were not attended any in service programme regarding swine flu.

The findings shows that highest percentage (44.55%) of staff nurses had average knowledge regarding swine flu. Overall mean score (12.5 ± 3.1) which is 62.5% of maximum score revealing good knowledge.

Index Terms—Swine flu, Staff nurses

I. INTRODUCTION

World health organization (2009) suggested that swine flu is a global outbreak of a new strain of influenza. A virus subtype H1N1, a type of swine influenza that was detected first on March and April 2009. In United states "Centers for Disease Control (CDC)" refers to as "novel influenza A (H1N1)" or "2009 H1N1 Flu".

According to "Centres for Disease Control" the swine flu refers to Mexican flu as it was first detected in Mexico City. In Netherlands it was originally called "pig flu" but is now called "New Influenza" by the National Health Institution.

Sunada G.T (2009) suggests that the world is facing one of the dreadful diseases which is swine flu. Now in India it is spreading very fast day by day and is increasing the affected cases and death. To be specific

Swine flu is a respiratory illness caused by a type A which reflects pigs, until now not infected human. But later it clearly showed it spread from person to person probably through respiratory route by droplets from coughing and sneezing. Viruses were very similar to influenza viruses that normally occur in pigs in North America. But further study has shown two genes from virus that normally circulate in pigs in Europe and Asia those are avian genes quadruple reassorting virus.

II. NEED FOR STUDY

Although initial reports identified the new strain as swine influenza, its origin is unknown. Several countries took precautionary measures to reduce the chances for global 'pandemic of the diseases. The outbreak intensified rapidly from that time and work and more countries have been reporting cases of illness from this virus [Jernigan, 2009]

With recent outbreak of swine flu within the human population has caused a great deal of concern for health officials in India and abroad and has become a publicized disease. Swine Influenza is a respiratory illness caused by type A influenza virus Looking at the present situation and widespread concern of human infection.

Friden.R (2009) said that in India it is spreading very fast day by day and is increasing the affected cases and death. It is a respiratory disease spread from person to person probably through droplets from coughing and sneezing. Symptoms last for 4 to 6 days. The "Centres for Disease Control" and other American Governmental agencies recommended some vital stats, according to that the total confirmed cases were about 622482 and the total death was about at least

16931 around the world. In India the confirmed cases were about 30197 and total death was about 1453. Tamil Nadu Medical board reported 2085 lab confirmed infection and death; while the affected cases is about 2350 (WHO, 2010).

Priya.N (2009) suggested that only mild symptoms are experienced by the majority of people, some have more severe symptoms. Mild symptoms may include fever, sore throat, headache, muscle or joint pain, nausea, vomiting or diarrhoea etc. People with diabetic, asthmatic, obesity, heart diseases, pregnancies and immune compromised are at risk of severe infection.

Mascola.L(2009) suggested that even for persons previously very health, a small percentage of patients will develop viral pneumonia. This manifest itself as increased breathing difficulty and typically occurs 3 to 6 days after initial onset of flu symptoms.

Laurence (2009) reported that in Australia and New Zealand the demand ICU beds due to viral pneumonia was much higher during the pandemic than is previous influenza seasons. A Canadian study reported that intensive care capacity in Winnipeg.

Evidence that influenza can be more severe in pregnant women comes from observation during previous pandemic and from studies among pregnant women who had seasonal flu. An excess of influenza associated excess death among pregnant women were reported during the pandemics of 1918-1919 and 1957-1958. Adverse pregnancy outcome has been reported following previous influenza pandemics with increased rates of spontaneous abortion and preterm birth reported especially among women with pneumonia. Case reports and several epidemiological studies conducted during interpandemic periods also indicate that pregnancy increases the risk for influenza complications for the mothers Swine Influenza is a respiratory illness caused by type A influenza virus Looking at the present situation and widespread concern of human infection.

According to Sunanda G.T. (2009) nurses are on the frontlines of our health care system and will play a critical role in treating and preventing the spread of swine flu. Nurses should update their knowledge by getting or knowing latest information about disease prevention They should demand the hospital authorities to update their knowledge by facilitating different media like information brochures, mass media, video clips etc.

Yukihiro.C (2009) reported that in Europe the nurses are having only average knowledge regarding the swine flu. So, the nurses should prepare themselves not only for the patients with illness, but also for the questions and concerns for the public and request or call to help health department to identify potential new cases.

III. STATEMENT OF THE PROBLEM

A study to assess the knowledge level of staff nurses regarding swine flu in Annai hospital, Karungal.

IV. OBJECTIVES

1. To assess the knowledge of staff nurses regarding swine flu.
2. To Compare the knowledge of staff nurses regarding swine flu with their selected demographic variables

V. RESEARCH METHODOLOGY

The research design adopted was descriptive with cross sectional survey approach. Purposive sampling technique was used for present study. 110 samples were selected for data collection to assess the knowledge of staff nurses regarding swine flu. Closed ended questionnaire was used to collect the data from staff nurses regarding swine flu.

VI. RESEARCH TOOL AND TECHNIQUE

The descriptive tool to assess the knowledge lead of staff nurses regarding swine flu consist of two parts PART-A

It consists of demographic characteristics of samples such as age, gender, educational status, experience and department of working and about in service programmes.

PART-B

It consists of 20 items pertaining to knowledge of staff nurses regarding swine flu. Each item has four options with one most appropriate answer. In each item the correct response carries the score 1 and wrong response carries 0 score. Thus for 20 items, there is maximum obtainable score is 20.

The level of knowledge can be grouped into items like very poor, poor, average, good and excellent based on percentage of scores.

LEVEL OF KNOWLEDGE	ACTUAL SCORE	PERCENTAGE
Very poor	1-4	Below 20%
Poor	5-8	21 – 40%
Average	9-12	41- 60%
Good	13-16	61-80%
Excellent	17-20	81-100%

VII. DATA ANALYSIS AND INTERTRETATION

Analysis is a process of organizing and synthesizing data in such a way that the research questions can be answered and hypothesis tested. (Polit and Beck)

The present study was designed to assess the knowledge regarding swine flu among staff nurses working in Annai Hospital, Karungal

The data was coded, organized, tabulated and interpreted using descriptive and inferential statistics and was analyzed as per the objective of the study under the following headings.

Section 1

Description of demographic characteristics of staff nurses.

Section 2

Area wise analysis of correct response of staff nurses’ knowledge regarding swine flu.

Section 3

Item wise analysis of percentage distribution on staff nurses’ responses to the knowledge items.

Section 4

Comparison of knowledge scores of swine flu among staff nurses with their demographic variables.

Section 1: Description of Demographic Characteristics of staff nurses

Percentage wise distribution of staff nurses according to their age group depicts that highest percentage (88.2%) of staff nurses were in the age group of 20-30 years and 9.09% of staff nurses were in the age group of 30-40 years whereas only 2.73% of staff nurses in the age group of 40-50 years. Hence it can be interpreted that most of the staff nurses were in the age group of 20-30 years under the study

Percentage wise distribution of staff nurses according to their sex shows that highest percentages (69.1%) were females and 30.9% were males. It seems that females were higher it might be recommended with female oriented job.

Percentage wise distribution of staff nurses according to their educational status shows that highest and more or less similar (45.45% & 44.55%) of staff nurses were diploma and B.Sc degree respectively. Whereas around 10% of staff nurses were post basic B.Sc degree and ANM's. It seems that most of the nurses under the study were diploma in nursing and B.Sc degree holders. It may be because of the hospital policies

Percentage wise distribution of staff nurses according to their working experiences shows that more or less similar percentage (43.64% & 42.75%) of staff nurses had below one year of experience and 1-5 years of experience respectively. Whereas 6.36% of them had above 10 years of experience. It may be due to recruitment of staffing in the hospital.

Percentage wise distribution of staff nurses according to their department of working shows that the highest percentage (54.55%) of staff nurses were working in ICU and 27.27% of staff nurses were working in medical surgical unit whereas, 13.64% of them were working in OBG unit. Further only 4.54% of staff nurses were working in paediatric unit. It shows that most of the staff nurses under the study were working' in ICU.

SECTION 2

Area wise analysis of correct response of staff nurse regarding swine flu

Area	Maximum Score	Mean	SD	Mean Percentage
Meaning of swine flu	3	2.8	0.55	93.33%
Etiology and mode of transmission	4	2.5	0.82	62.50%
Symptoms	6	2.2	0.99	73.33%
Diagnostic measures	2	1.1	0.80	55%
Treatment and prevention	6	2.3	1.27	38.33%
Complication and nurses' responsibility	2	1.5	0.16	75%
Overall	20	12.5	3.10	63%

The overall mean, SD and mean percentage of the knowledge score among staff nurses regarding swine flu shows that mean score (12.5 +3.1) which were 63%. It shows that nurses had good knowledge regarding swine flu.

However, area wise distribution on the mean SD and mean percentage of the staff nurses shows that highest mean score (2.8+0.55) which was 93.3% for the area meaning of swine flu whereas the lowest mean score (2.3+1.27) which was 38% for the area of prevention and treatment of swine flu. More or less similar mean score (1.5+0.16 and 2.2+0.99) which was 75% and 73.33% for the area of complication and nurses' responsibility and symptoms of swine flu respectively. However, the mean score (2.5 0.82) which was 62.5% for the area etiologic and mode of transmission.

VIII. DISCUSSION, SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

The study was done to assess the knowledge level of staff nurses regarding swine flu. The study was conducted with 110 samples of staff nurses from Annai Hospital. Karungal.

IX. DISCUSSION

This chapter deals with the discussion of findings based on the objective of study, the finding are discussed under the following headings.

Section 1:

Distribution of staff nurses according to their demographic variables.

Percentage wise distribution of staff nurses according to their age group show that highest percentage (88.18%) of them was in the age group of 20-30 years. Whereas (2.73%) of them were in age group of 40-50 years. Hence it can be interpreted that most of the staff nurses where in the age group of 20-30 years under the study. This was supported by Devi G (2008) that most of the staff nurses were in the age group of 20-30 years. Percentage wise distribution of staff nurses according to their sex show that highest percentage (69.1%) of them was females and 30.9% were males. It seems that female staffs were higher. This was supported by the by the findings of Reghunandhan Singh (2008) who also found that the highest percentage of staff nurses under study were females,

Percentage wise distribution of staff nurses according to their educational qualification show that more or less similar percentage (44.55% and 44.55%) of staff nurses were diploma in nursing and BSc (N) degree holders respectively. This finding was contraindicated with the findings of Mali (2008) who found that 95% of staff nurses were in diploma in nursing. It might be due to current educational trends. However, there is only 10% of staff nurses it can be were ANM's and post BSc (N) is interpreted that majority of staff nurses were GNM's and BSc holders it can be due to hospital recruitment policies.

Percentage wise distribution of staff nurses according to their working experience shows that the highest percentage (43.64%) of staff nurses were have below one year of experience whereas 42.3% of staff nurses had below 1-5 years. And lowest percentage (6.36%) of them had above 5 years of experience. This was supported by the findings of Siji Sam (2010) who found that the highest percentage of staff nurses were have below one 39.2% of staff nurses had below 1 to 5 years of experience.

Percentage wise distribution of staff nurses according to their working department shows that the highest percentage (54.55%) of them was in ICU. And 27.27% of them were working in medical surgical department, whereas 13.64% of them were working in OBG department and only 4.54% of them working in pediatric department. The present study findings were consistent with the study findings of Prababathy (2007) who reported that the highest percentage of staff nurses were in ICU, 31% in medical surgical unit, 14% were in midwifery unit. It might e due to the hospital policy regarding staff distribution in working areas.

Section 2:

Area wise distribution of staff nurses according to their level of knowledge regarding swine flu.

Area wise distribution of mean knowledge scorer for meaning of swine flu was 93.33% revealing very good knowledge in the area of meaning. Whereas symptoms of swine flu and the complication and nurses' responsibility the mean percentage of score were 73.33% and 75% respectively ravelling good knowledge. However, the area treatment and prevention

of swine flu the mean percentage of score was 38.33% which was the lowest one Item wise analysis of knowledge of staff nurses on meaning of swine flu reveals that the highest percentage of the staff nurses correctly responded to the item "virus is the causative organom for swine flu". However similar 93% of staff nurses were correctly responded to both items.

Section 3:

Item wise distribution of staff nurses according to their level of knowledge regarding swine flu.

Item wise analysis of knowledge of staff nurses regarding etiology and mode of transmission of swine flu reveals that the majority of staff nurses (92%) were correctly responded to the item " swine flu is mostly

affecting the respiratory system" whereas the lowest percentage (32%) of them were responded correctly for the item" the incubation period of swine flu is 3-8 days".

Item wise analysis of knowledge of staff nurses regarding swine flu reveals that the higher percentage (82%) of the staff nurses were correctly responded to the item "signs and symptoms of swine flu is seen in younger children are fever with rashes, bluish skin and fast are the warning signs of swine flu".

Item wise analysis of knowledge of staff nurses regarding diagnostic measures that the higher percentage (67%) of the staff nurses were correctly responded to the item "Rapid Influenza diagnostic test. Direct Immune fluorescent Assay are the diagnostic method of swine flu" and the lower percentage (50%) of them were correctly responded to the item.

Item wise analysis of knowledge of staff nurses regarding treatment and prevention of swine flu reveals that the higher percentage (62%) of staff nurses were correctly responded to the item "administration of antiviral drug are the main treatment of swine flu" whereas only (2%) of staff nurses were responded correctly to the item" the liquid intake and rest are the better choice to reduce or help ease symptoms":which was lowest.

Item wise analysis of knowledge of staff nurses regarding complications and nurses' responsibility of swine flu shows that higher percentage (82%) of the staff nurses were correctly responded to the item "Respiratory failure, dehydration and fatalities are the man complication of swine flu wheares the lower percentage (70%) of them were respondat correctly to the item "follow strict standards infection conrol measure is the main nuning responsibility while curing for a person with swine flu".

Item wise distribution of mean knowledge scores, reveals that 95% of staff nurses were correctly responded to the item "virus is the causative organism of swine flu". Whereas the lowest percentage (2%) of staff nurses were responded correctly to the item "liqued intake and rest are the better choice to reduce or help ease symptom

Section 4:

Comparison of knowledge score If swine flu among staff nurses with their Demographic variables.

Age wise distribution of mean percentage of staff nurses' knowledge shows that the highest mean score (12.9+3) which was 64.5% were the nurses in the age

group of 30-40 years and the lowest mean score (11+4.24) which was 55% of the total score was for the age group of 40-50 years.

Sex wise distribution of mean percentage of staff nurses' knowledge shows that the highest mean score (12.8+3.1) which was 64% were the female staffs and the lowest mean score (11.8+3.3) which was 59% were the female staff.

Education wise distribution of mean percentage of staff nurses knowledge shows that the highest mean score (13.8+1.6) which was 69% were ANMs and the lowest mean score (12.3+3.2) which was 61.5% were the B.Sc(N).

Experience wise distribution of mean scores shows that the highest mean score (13.4+3.2) which was 77% were having above 10 years of experience and the lowest mean score (12.0+3.2) which was 60% were the group having 5-10 years of experience

X. IMPLICATIONS

A. Nursing Service

The findings of the study will help the nursing professionals working in hospital for reinforcing their knowledge regarding swine flu

It is observed from the findings that the staff nurses had good get knowledge

B. Nursing Education

The findings the study clearly point out the need of area to be improved about knowledge of swine flu

Nursing person should get in-service education to update of knowledge and abilities in identifying the learning needs of knowledge in swine flu.

The nurse education can use the tool to teach the staff nurses about knowledge regarding swine flu.

- Nursing Student can be prepared in providing good care to swine flu in hospital.

C. Nursing Research

It is essential to identify the knowledge of staff nurses regarding swine flu. Extensive research must be conducted in the area to identify several effective method educations.

XI. RECOMMENDATIONS

Based on the finding of this study the following recommendations are similar study can be conducted for a large sample to generalize the findings.

A study be done to evaluate the effectiveness of planned teaching programmed on knowledge of swine flu.

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