

Original Research Article

Swine flu awareness in general population

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ABSTRACT

Background: By simple hygiene and sanitation measures for cough, swine flu transmission can be effectively prevented. The purpose of this study was to know whether the people had enough knowledge about swine flu (H1N1) and to assess their knowledge about possible preventive measures to be taken including vaccination against swine flu epidemics.

Methods: A cross-sectional study was conducted during November to December 2018. 200 residents were surveyed.

Results: In our study, 196 (98%) of respondents were aware of swine flu infection, 170 (85%) of respondents knew that swine flu is due to viral infection while 130 (65%) of respondents were aware that swine flu infection spreads through air while sneezing and coughing. 192 (96%) of respondents knew fever as symptom of swine flu, 166 (83%) of respondents knew cough and cold as symptoms while 128 (64%) of respondents knew headache and body ache as symptoms. 188 (94%) of respondents were aware that vaccination against Swine flu can prevent swine flu infection. 160 (80%) of respondents knew that covering mouth and nose while coughing and sneezing can prevent spread of Swine flu infection while 104 (52%) of respondents knew that frequent hand washing helps in preventing spread of Swine flu infection.

Conclusions: The present review concluded that majority of the respondents had substantial knowledge regarding swine flu, yet there were notable deficiencies regarding the transmission, preventive measures and availability of vaccine. There is need for appropriate training regarding infectious diseases and continuous education programs.

Keywords: Swine flu, Infection, Knowledge, Prevention

INTRODUCTION

A deadly disease flu occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine. The disease spreads easily from a person-to-person, and can cause serious illness. It can spread out across the country and even worldwide in a very short span of time.¹

Swine flu is caused by novel H1N1 virus. It led to the major pandemic in 2009. World Health Organization declared it phase 6 level of pandemic. Worldwide more than 214 countries and overseas communities reported

laboratory-confirmed cases of pandemic influenza H1N1 2009 till 1 August 2010. This included over 18449 deaths.²

The transmission of the virus is from person-to-person. It is like seasonal influenza spread. The incubation period for influenza is 1 to 4 days. The symptoms of Swine flu include sore throat, chills, severe headache, cough, weakness and general discomfort like influenza. Some individuals may have serious respiratory illness, including pneumonia or respiratory failure leading to death.³

Clinical symptoms of infection with the influenza virus do not differ from those of seasonal human influenza. So there is a continued need for sub typing and laboratory confirmation.⁴

Symptoms of the H1N1 flu include fever, chills, nausea, vomiting, body aches, lethargy and fatigue. These symptoms usually appear in rapid succession. People at high risk include children, pregnant women and those with certain medical conditions. The most common cause of death from the virus is respiratory failure. Other causes of mortality include sepsis, dehydration and electrolyte imbalance.⁵

The illness is generally mild except in people in high risk groups as pregnant women and people with medical conditions like infection with other influenza viruses.⁶

Misconceptions and worries have led to inappropriate behavior by the public like refusal to take precautionary measures, including wearing a mask or getting a vaccination; avoidance of certain activities like visiting the hospital due to fear of healthcare facilities for fear of acquiring the infection.⁷

Swine flu is emerging disease and spreads very fast. Simple preventive measures at an early stage will be useful in prevention of the disease. It could only be achieved by raising the level of awareness.⁸

To educate the public about the precautions that individuals can take to reduce the risk of transmission is important. These include using tissues when sneezing, washing hands regularly with soap and water.⁹

Adequate amount of vaccine and antiviral are unlikely to be available early in a pandemic. Later, the vaccine could become ineffective because of resistance. So focus on the use of non-pharmaceutical public health interventions to inhibit human to human transmission is important.¹⁰

Aims and objectives

- To know whether the people had enough knowledge about swine flu (H1N1).
- To assess their knowledge about possible preventive measures to be taken by the people including vaccination against swine flu epidemics.

METHODS

A cross-sectional study assessing the knowledge, attitudes and practices regarding Swine flu was performed among patients visiting the rural health centers of Majhauriya, Lauriya, Chanpatiya and Barbat Sena. All these rural health centers are primary health centers which are run by Government Medical College, Bettiah, West Champaran, Bihar.

People visiting these primary health centers were selected by random selection process.

People aged 25 years or above during the period November to December 2018, formed the sample population. Using convenience sampling, 200 study participants were approached and verbal consent for a face-to-face interview was sought.

Questions were asked about the awareness of Swine flu infection, cause and symptoms of Swine Flu and Practices to prevent swine flu infection.

At the end of interview, patients were given all above information about swine flu. Training was given to prevent swine flu infection. Counseling was done to take vaccine against swine flu infection. Also, information was given that as strain of swine flu virus is different every year, the swine flu vaccine should be taken every year when the new one comes and that too at the start of the season around the month of May or June.

Inclusion criteria

Inclusion criteria were people aged >25 years and <60 years; people willing to participate in the study.

Exclusion criteria

Exclusion criteria were people <25 years and >60 years of age; people who failed to respond to all questions or who left before completing the interview.

Face-to-face interview was based on a pretested questionnaire

It included three essential questions: 1) mode of spread of swine flu 2) common symptoms of, and 3) preventive measures against the swine flu.

Table 1: Questionnaire.

1	Name
2	Age
3	Awareness of swine flu infection
4	Cause of swine flu
5	Symptoms of swine flu
6	Practices to prevent swine flu

Data was collected in Microsoft excel sheet and analyzed. Statistical analysis was done in percentages.

RESULTS

In our study, 140 (70%) of respondents were from 25-40 years, 40 (20%) respondents were from 41-50 years while 20 (10%) of respondents were from 51-60 years of age.

Table 2: Age and sex distribution.

	No. of respondents	Percentage (%)
Age (years)		
25-40	140	70
41-50	40	20
51-60	20	10
Sex		
Males	110	55
Females	90	45

In our study, there were 110 (55%) of males while there were 90 (45%) females (Table 2). So, majority of respondents were in the age group of 25-40 years. Majority of respondents were males.

Table 3: Awareness of swine flu and its transmission.

Awareness of swine flu and its transmission	No. of respondents	Percentage (%)
Awareness of Swine flu	196	98
Viral infection is the cause	170	85
Spread by coughing and sneezing through air	130	65

In our study, 196 (98%) of respondents were aware of swine flu infection, 170 (85%) of respondents knew that swine flu is due to viral infection while 130 (65%) of respondents were aware that swine flu infection spreads through air while sneezing and coughing (Table 3). So, most respondents had heard about swine flu infection. Many respondents knew that it is a viral infection.

Table 4: Awareness of symptoms.

Awareness of symptoms	No. of respondents	Percentage (%)
Fever	192	96
Cough and cold	166	83
Headache and body ache	128	64

In our study, 192 (96%) of respondents knew fever as symptom of Swine flu, 166 (83%) of respondents knew cough and cold as symptoms while 128 (64%) of respondents knew headache and body ache as symptoms (Table 4). So, majority of respondents were aware of the symptoms of swine flu infection.

In our study, 188 (94%) of respondents were aware that vaccination against Swine flu can prevent swine flu infection. 160 (80%) of respondents knew that covering mouth and nose while coughing and sneezing can prevent spread of Swine flu infection while 104 (52%) of

respondents knew that frequent hand washing helps in preventing spread of swine flu infection (Table 5). So, awareness about vaccine against Swine Flu infection was very good.

Table 5: Awareness of prevention of swine flu.

Awareness of prevention of swine flu	No. of respondents	Percentage (%)
Vaccine	188	94
Covering mouth and nose while coughing and sneezing	160	80
Frequent hand washing	104	52

DISCUSSION

In our study, 140 (70%) of respondents were from 25-40 years, 40 (20%) respondents were from 41-50 years while 20 (10%) of respondents were from 51-60 years of age.

In our study, there were 110 (55%) of males while there were 90 (45%) females (Table 2). Contrary to our study, Hanan et al found that out of 1,548 interviews, there were 828 males and 720 females. Most of the participants were in the age groups of 18-24 years (53.2%) and 25-39 years (32.8%).¹¹

In our study, 196 (98%) of respondents were aware of Swine flu infection, 170 (85%) of respondents knew that Swine flu is due to viral infection while 130 (65%) of respondents were aware that Swine flu infection spreads through air while sneezing and coughing (Table 3).

Similar to our study, Hanan et al found that the majority of the participants (95.4%) were aware that the disease was a viral illness. Many also mistakenly believed that the disease was an immunodeficiency disease (27.6%). Most had accurate information about the mode of transmission, but 43% stated that sexual contact was a mode of transmission.¹¹

Contrary to our study, Baria et al reported that 86% science and 63.18% commerce students correctly knew the causative agent for swine flu. 84.5% (science) and 54% (commerce) students knew the other name of swine flu (H1N1). 61% (commerce) and 56% (science) students knew about the availability of swine flu vaccine at government hospitals. 57% (science) and 40.30% (commerce) knew about availability of free treatment of swine flu at government hospitals.¹²

In our study, 192 (96%) of respondents knew fever as symptom of Swine flu, 166 (83%) of respondents knew cough and cold as symptoms while 128 (64%) of respondents knew headache and body ache as symptoms (Table 4).

Contrary to our study, Baria et al reported that 64.6% (science) and 69.3% (commerce) knew cough/sneezing as one of the modes of transmission. 10.6% and 11% (science) and 14% and 5.2% (commerce) students had the misconception that it is transmitted by food and water and by eating pigs meat respectively.¹²

Similar to our study, Shilpa et al found that fever as symptom was known to 82.6% while cough and cold was known to 72.3% and 55.4% of the respondents as a symptom respectively 2.7% of them had myth regarding spread of swine flu by eating pork, while 56.0% of the respondents said it was by inhalation and close contact with the infected. 50.5% of the participants knew there was treatment available for swine flu, while only 10.3% of them had heard about the drug Tamiflu.¹³

In our study, 188 (94%) of respondents were aware that vaccination against swine flu can prevent swine flu infection. 160 (80%) of respondents knew that covering mouth and nose while coughing and sneezing can prevent spread of Swine flu infection while 104 (52%) of respondents knew that frequent hand washing helps in preventing spread of Swine flu infection (Table 5).

Similar to our study, Shilpa et al found that 50.5% were aware of free treatment and testing facilities by Government. Use of mask/handkerchief as a preventive measure against swine flu was known to 81.5%. 37.0% said it could be prevented by maintaining personal hygiene avoiding crowded places 32.1%.¹³

Contrary to our study, Shilpa et al found that 15.8% of them were aware of swine flu vaccine and 16.3% among them were willing to take it. 63.0% were scared of the disease.¹³

Similar to our study, Rajoura et al found that 75% of the health care providers were aware about the symptoms of swine flu. Most of them were aware that it is transmitted through droplet infection. Correct knowledge of the incubation period of swine flu was known to 80% of the doctors and 69% of the nurses. Knowledge about high-risk persons like contacts, travelers, health care providers was in 88% of the doctors and 78.8% of the nurses. Wearing mask during duty hours was observed in 82.6% of doctors and 85% of nurses.¹⁴

Contrary to our study, Kakade found that 18 (20%) students are had poor knowledge, the majority 31 (62%) had average knowledge and 9 (18%) had good knowledge regarding swine flu and its protective measures.¹⁵

CONCLUSION

The present review concluded that majority of the subjects had substantial knowledge regarding swine flu, yet there were notable deficiencies regarding the transmission, preventive measures and availability of vaccine.

Understanding the role of specific perceptions in motivating people to engage in precautionary behavior may help health communicators to improve their messages about outbreaks of swine flu.

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