International Journal of Health Sciences and Research
www.ijhsr.org ISSN: 2249-9571

Original Research Article

A Descriptive Study on Awareness Regarding Swine Influenza (H1N1) among Students of a Selected College of Nursing, Mohali

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Received: 24/03/2016 *Revised: 16/04/2016* *Accepted: 22/04/2016*

ABSTRACT

Introduction: An infectious disease is a clinically evident illness resulting from the presence of pathogenic microbial agents, including viruses, bacteria, fungi, protozoa, multi cellular parasites. Swine influenza (H1N1) also called pig influenza, swine flu, hog flu, is a highly contagious respiratory infection caused by influenza A subtypes: H1N1, H1N2, H2N3, H3N1 and H3N2. Influenza a virus strains are categorized according to two proteins found on the surface of the virus; Hem agglutinin [H] and neuraminidase [N].
The WHO 2009 figures have brought out that youth is more commonly affected and in India about 41.6% of people tested positive are youth. As the college students are in close contact with each other in residence halls, classrooms, lecture halls, library and other gathering places it can be communicated rapidly among them.
As per recommendations of WHO, the disease can be prevented through "Vaccination when available, thorough and frequent hand washing, a balanced diet with fresh fruits and vegetables, whole grains and lean proteins, sufficient sleep, regular exercise and avoiding crowded places'' and the people need to be made aware about these measures.
Materials & Methods: 100 students of BSN 1st year, 2nd year, 3rd year and 4th year of RBCN, Mohali were selected by simple random sampling (lottery method) as per inclusion and exclusion criteria. The data was collected from subjects by a structured questionnaire, consisting of socio-demographic characteristics and questionnaire about awareness regarding swine influenza (H1N1).
Results: The study findings showed that the mean awareness score of the subjects regarding swine influenza (H1N1) was 12.37 ± 03.26 between ranges 0-14 with mean percentage 12.37%. Maximum (71%) of subjects were having average level of awareness (score between 11-20) regarding swine influenza (H1N1).
Conclusion: It was concluded that maximum of study subjects had average level of awareness regarding swine influenza (H1N1).

Key words: Awareness, Swine influenza, Students.

INTRODUCTION

An infection caused by one of the multiple types of influenza virus, particularly the new strain of H1N1 influenza a virus is commonly referred to as swine flu, pig influenza or swine influenza (H1N1).

The transmission of virus from pigs to human is uncommon and does not always lead to human flu, often resulting only in the production of antibodies in the blood. Humans who are frequently exposed to infected pigs are at increased risk of containing swine influenza (H1N1) infection. The human population does not

have immunity against the virus that is why it has potential to spread worldwide. [1]

The 1918 swine influenza (H1N1) pandemic was a serious outbreak and affected 20% to 40% of world's population most commonly elderly, very young, pregnant women or people with preexisting diseases such as cancer. [2]

The recent outbreak of swine influenza (H1N1) was in late 2014 and early 2015. In India it has affected nearly 31,151 people and claimed over 1,841 lives. The largest number of reported cases and deaths were in the North-Western India including states like Delhi, Madhya Pradesh, Rajasthan and Gujarat. [3]

According to the Center for Disease Control and prevention (CDC), the symptoms of Swine Influenza (H1N1) in humans are similar to those of influenza and of influenza–like illness such as fever, cough, sore throat, body ache, headache chills and fatigue. The 2009 outbreak has shown an increase in percentage of patients reporting diarrhea and vomiting. People may be infected with the flu, including 2009 H1N1 and have respiratory symptoms without fever. Severe illnesses and deaths have occurred as a result of illness associated with this virus. [4]

Swine influenza (H1N1) strain is sensitive to two antiviral medicines Oseltamivir phosphate (Tamiflu) and Zanamivir (Relenza) that are used to treat human influenza. Oseltamivir is an oral agent that is approved for influenza prophylaxis in patients one year and older, and for treatment of uncomplicated acute influenza in patients one year and older who have been symptomatic for no more than two days. Neuraminidase inhibitors block the viral neuraminidase enzyme, which is critical in releasing virions from the infected host's cells. These drugs are active against influenza A and B. [5]

Early identification & prompt treatment with antiviral drugs in high risk individuals and in persons with acute infection is advised to prevent worsening of the disease and death.

MATERIALS AND METHODS

The study was conducted on hundred students of B.Sc. Nursing 1st, 2nd, 3rd & 4th year of RBCN, Mohali selected by simple random sampling (lottery method) as per inclusion and exclusion criteria.

- The subjects were informed about the purpose and objectives of study.
- The informed verbal consent was taken from subjects.
- Selection of study sample was done by using simple random sampling (lottery method).
- The data was collected through self-structured questionnaire consisting of socio - bio - demographic characteristics and awareness on swine influenza (H1N1).

Exclusion criteria:

- B.Sc. (N) Post Basic students.

Data processing and Analysis

The Collected data has been analyzed using both Descriptive and Inferential statistics and presented in the form of tables and figures. The various statistical measures used for analysis were frequency distribution; measures of central tendency (mean) measure of dispersion (range, standard deviation).

RESULTS

Analysis and interpretation of data were organised under the following headings:

Part 1- Data related to socio-demographic variables. **Part 2-** Data related to awareness regarding swine influenza (H1N1)

Table 1: Mean awareness score of subjects regarding swine influenza (H1N1) N= 100

Descriptive parameter	Awareness score
Mean	12.37
SD	03.26
Mean %	12.37
Range	0-14

Table 2: Mean distribution of awareness among subjects regarding swine influenza (H1N1) N= 100

Categories	Range	Mean ± SD	Mean %
General information	0-9	4.12 ± 1.37	45.07
Transmission	0-4	1.39 ± 0.97	34.75
Incubation period	0-2	0.04 ± 0.58	02.00
Sign & symptoms	0-3	0.77 ± 0.06	25.06
Risk groups	0-2	0.76 ± 0.71	38.00
Diagnosis	0-2	0.78 ± 0.65	39.00
Treatment	0-4	1.38 ± 0.90	34.05
Complications	0-1	0.35 ± 0.46	35.00
Prevention	0-8	2.40 ± 1.13	30.00

Table 3: Level of awareness of the subjects regarding swine influenza (H1N1) N=100

Level	f (%)
Good	00 (00.0)
Average	71 (71.0)
Poor	29 (29.0)

Good: 21-30, Average: 11-20, Poor: ≤10

Table 4: Level of awareness of subjects regarding general information about swine influenza (H1N1) N=100

Awareness about……..	f (%)
Cause	77 (77.0)
Primary host	86 (86.0)
Epidemiological status	14 (14.0)
First case detection	23 (23.0)
Maximum cases	09 (19.0)

Table 5: Level of awareness of subjects regarding transmission of swine influenza (H1N1) N=100

Awareness about……..	f (%)
Mode	23 (23.0)
Sources	54 (54.0)
Non-viable sources	53 (53.0)
Viability on innate surfaces	09 (09.0)

Table 6: Level of awareness of subjects regarding incubation of swine influenza (H1N1) N=100

Awareness about……..	f (%)
Incubation period	17 (17.0)
Infectious period	21 (21.0)

Table 7: Level of awareness of subjects regarding sign and symptoms of swine influenza (H1N1) N=100

Awareness about……	f (%)
Sign/Symptoms in adults	41 (41.0)
Sign/Symptoms in children	14 (14.0)
Emergency warning signs	22 (22.0)

Table 8: Level of awareness of subjects regarding risk groups of swine influenza (H1N1) N=100

Awareness about……..	f (%)
High risk category	31 (31.0)
Prevalence group	44 (44.0)

Table 9: Level of awareness of subjects regarding diagnosis of swine influenza (H1N1) N=100

Awareness about……..	f (%)
Differential diagnosis	31 (31.0)
Other tests	48 (48.0)

Table 10: Level of awareness of subjects regarding treatment of swine influenza (H1N1) N=100

Awareness about……..	f (%)
Vaccines	37 (37.0)
Treatment drugs	30 (30.0)
Prognosis	18 (18.0)

Table 11: Level of awareness of subjects regarding complications of swine influenza (H1N1) N=100

Awareness about……..	f (%)
Major complications	35 (35.0)

Table 12: Level of awareness of subjects regarding prevention of swine influenza (H1N1) N=100

Awareness about……..	f (%)
Preventive techniques	35 (35.0)
Isolation period	53 (53.0)
Waste handling	15 (15.0)
Hand washing techniques	23 (23.0)
Sensitivity of virus	12 (12.0)
Effective mask type	30 (30.0)
HPA guidelines	55 (55.0)

DISCUSSION

In the study, subjects had an average level of awareness regarding swine influenza (H1N1) with mean awareness score of 12.37 ± 03.26 between ranges 0-14 and mean percentage of 12.37%.

Kaipa et al. (2009) conducted a cross sectional study in District of Nellore, Andhra Pradesh among Dental Practice nurses to assess the knowledge and attitude towards swine influenza and findings revealed that the mean scores of knowledge and attitude were (37.92 ± 5.63) and (11.37 ± 2.51) from the maximum scores of 52 and 20 respectively. [6] In comparison to that, the present study reveals that the mean awareness scores of subjects was (12.37± 03.26) with (range 0-14) and the mean percentage was 12.37%.

Ozer et al. (2011) conducted a study in Kahramanmaras Sutcuimam University School of Health, Turkey on knowledge and behavior regarding swine flu and its vaccine among medical faculty and students of the University and findings revealed that 96.1% of the students knew high fever as the initial symptom of swine flu, 91.8% had knowledge about methods of communication and 95.5% knew preventive measures. [7] In contrast to that, the present study shows that 25.06% of subjects knew about the sign and symptoms with mean ± SD of 0.77 ± 0.06 and 34.75% were aware of transmission with mean ± SD of 1.39 ± 0.97.

Datta et al. (2010) conducted a cross sectional study to ascertain knowledge, attitude and practices regarding Swine flu among Para-medical workers in a tertiary care hospital, Pondicherry and findings revealed that 89.03% knew about signs and symptoms, 91.56% knew about modes of transmission and 91.98% knew about routes of transmission of Swine flu. [8] Contrary to this, the present study reveals that one fourth (25.06%) subjects were aware of sign and symptoms and more than one third (34.75%) knew about the mode of transmission.

CONCLUSION

The mean awareness score of the subjects regarding swine influenza (H1N1) was 12.37 ± 03.26 between ranges 0-14 with mean percentage 12.37%.

Maximum 71 (71.0%) of subjects had average level of awareness, more than one fourth (29.0%) had poor awareness while none had good level of awareness regarding swine influenza.

ACKNOWLEDGMENT

We would like to thank the study participants for their cooperation.

REFERENCES

1. Swine Influenza. [Internet]. 2015 [cited 2014 Nov 16]. Available from https://en.wikipedia.org/wiki/Swine_influenza.
2. Mercola.com. Swine Flu -- One of the Most Massive Cover-ups in American History. [Internet]. 2015 [cited 2014 Nov 16]. Available from http://articles.mercola.com/sites/articles/archive/2009/11/03/what-we-have-learned-about-the-great-swine-flu-pandemic.aspx
3. Imthiyz Khaja Shaik, Jai P Narain. Pandemic Disease Swine Flu: H1N1 Virus Clinical & Prevention Aspects. [Internet]. Research & Reviews: Journal of Pharmacy & Pharmaceutical Sciences; 2015 [cited 2014 Nov 16]. Available from http://www.rroij.com/open-access/ pandemic -disease-swine-flu-h1n1-virus-clinical-and-prevention aspects. php? aid =51889
4. Centers for Disease Control & Prevention 2009 H1N1 Flu (Swine Flu) & You. [Internet]. 2010 [cited 2014 Nov 16]. Available from http://www.cdc.gov/h1n1flu/qa.htm
5. Irina V. Erlikh, Sherly Araham, and Vasantha K. Kondamudi. Management of Influenza. [Internet]. American Family Physician. 2010 [cited 2014 Nov 16]. Available from http://www.aafp.org/afp/2010/1101/p1087.html
6. Kaipa Sudhakar, Epari Venkatarao, Gupta Sandhya. Knowledge and attitude towards swine influenza (2009) among dental practitioners in Nellore district of Andhra Pradesh, India [Internet]. 2011 Journal of education and ethics in Dentistry, vol. 1, no. 2, pp. 52-8, [cited 2014 Nov 17]. Available from http://www.jeed.in/article.asp?issn=0974-7761;year=2011;volume=1;issue=2;spage=52;epage=58;aulast=Kaipa
7. Ozer Ali, Celik Ekrem, Ekerbicer Cetin Hasan, Kirecci Mustafa. Medical faculty and school of health student knowledge of and behavior regarding swine flu and vaccine, in Kahramanmaras, Turkey [Internet]. 2011 The Southeast Asian journal of tropical medicine and public health, vol. 42, no. 1, pp. 161-67, [cited 2014 Nov 17]. Available fromhttp://www.researchgate.net/publication/49837994_Medical_faculty_and_school_of_health_student_knowledge_of_and_behavior_regarding_swine_flu_and_vaccine_in_Kahramanmaras_Turkey.
8. Datta Sekhar Shib, Kuppuraman D, Boratne Drabhijit, Abrahm, Singh. Knowledge, attitude and practices regarding swine flu among para-medical workers in a tertiary care hospital in Pondicherry [Internet]. 2011 The journal of communicable diseases, vol. 43, no. 1, pp. 1-9, [cited 2014 Nov 17]. Available from http://www.researchgate.net/publication/240307399_Knowledge_attitude_and_practices_regarding_swine_flu_among_paramedical_workers_in_a_tertiary_care_hospital_in_Pondicherry.

How to cite this article: Kaur S, Kaur G, Kaur J et al. A descriptive study on awareness regarding swine influenza (H1N1) among students of a selected college of nursing, Mohali. Int J Health Sci Res. 2016; 6(5):190-193.

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