

Awareness of Swine Flu Among the Medical Students of Shaikh Zayed Medical College Rahim Yar Khan.

Short Communication

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ABSTRACT

Background: Swine flu is a viral disease affecting upper as well as lower respiratory tracts. Due to limited resources in a developing country like Pakistan, medical students (the future medical practitioners) should be familiar with the basic knowledge, attitude and practice regarding this infectious disease so that they can help the community during its outbreaks.

Objective: To determine the basic knowledge and awareness of swine flu among the medical students of Shaikh Zayed Medical College, Rahim Yar Khan.

Methodology: This cross sectional observational study was carried out among the medical students of Shaikh Zayed Medical College, Rahim Yar Khan during April – May 2019 through a pre-designed pro-forma. A total of three hundred pro-forma were distributed in all classes of MBBS from first year to final year, among which 211 were returned, completely filled by the respondents. The responses of 45 students were disregarded as they hadn't heard about swine flu. Remaining 166 questionnaires were included in the study and further analyzed for results. Data was then analyzed with SPSS version 22.0.

Results: Majority of respondents (n=151, 91%) correctly replied "virus as its causative agent". Majority of respondents (n=138, 83.1%) responded "respiratory droplet as mode of transmission". One hundred and sixty six questionnaires were further analyzed for results. Regarding treatment and prevention of swine flu, 123 (74.1%) replied it as treatable disease and a significant number of students (n=154, 92.8%) deemed it as preventable. About half (45.8%) of participants did not know about vaccine availability in Pakistan and only 42 (25.3%) students correctly answered that vaccination was the best measure to prevent swine flu.

Conclusion: Satisfactory results were seen about knowledge and awareness regarding epidemiology, etiology and mode of transmission. However, deficiencies were seen in awareness about vaccination and prevention of swine flu. So there is a need for health education awareness programs in medical and dental schools on regular basis.

Key words: Swine Flu, Knowledge, Awareness, Medical Students, Viral Infections.

INTRODUCTION

Swine flu is a communicable viral disease which causes potential upper and lower respiratory tract infections. It is caused by a sub-type of influenza A virus i.e. H1N1 and is generally a disease of pigs. This disease commonly occurs in people working in close contact with pigs and then spreads from person to person through respiratory droplets.^[1] During 1918 flu pandemic (Spanish flu), about 500 million people were infected and approximately 50-100 million died. Swine flu was found as human influenza in that pandemic.

Since then multiple outbreaks were seen in the 20th century but in April 2009, a significant event occurred when a new strain, the H1N1 virus came out, resulting in swine flu pandemic, as declared by World Health organization (WHO) in June 2009.^[3] Pakistan's neighboring country, India is the 3rd largest country, suffering from swine flu where this disease affected more than 27000 people and was responsible for the deaths of 1700 people in 2015.^[4,5] Pakistan is among the countries that are susceptible to



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swine flu outbreaks. A large number of influenza outbreaks in various parts of the country including Sindh and Punjab have been reported. In 2014 swine flu outbreak, in Pakistan was noticed in areas of Dera Ghazi Khan, Taunsa and Multan, where 05 patients died due to this infection.^[6] After that, multiple cases have been reported every year with significant mortality and morbidity.^[7] Pakistan is remarkably susceptible to the swine flu pandemic due to certain reasons. Pakistan shares its borders crucially with China and India, both the countries having large number of natives, high pig densities and wide range of swine flu reported cases.^[8] Punjab and Sindh (which are the most affected areas of Pakistan) share borders with the most affected Indian provinces like Rajasthan, Punjab and Gujarat.^[9] Moreover, every year, a significant number of Pakistanis (495,270 in the year 2019) visit Saudi Arabia for pilgrimage purpose, can easily acquire swine influenza infection from carriers of different parts of the world.^[10]

An increased mortality rate among the infectious diseases produces anxiety and distress among the community and request for specific tests and treatment rises even among the asymptomatic individuals. This puts an extra pressure over the government to manage the epidemic circumstances with restricted funds. As inhabitants of a developing country, we lack the basic diagnostic and technical facilities for the reporting and treatment of swine flu cases. Measures should be taken through different campaigns and awareness programs in the community regarding prevention of this disease. Medical and dental students are exposed to the affected people in the community as well as in clinical wards during their posting. As they are the future medical practitioners, they should be familiar with the basic knowledge of this infectious disease. That's why we conducted this study among the medical students of Shaikh Zayed Medical College, Rahim Yar Khan to evaluate their basic understanding of swine flu as adherence to preventive planning can be increased with better awareness.^[8,11]

METHODOLOGY

This cross sectional observational study was carried out during April – May 2019 among the medical students of Shaikh Medical College, Rahim Yar Khan. The study was conducted after the approval of the institutional review board. The subjects were selected by non-probability convenience sampling. A pre-designed pro-forma consisting of multiple choice questions as well as close ended questions was distributed for data collection. A total of three hundred

pro-forma were distributed in all classes of MBBS from first year to final year, among which 211 were returned, completely filled by the respondents. The responses of 45 students were disregarded as they hadn't heard about swine flu. Remaining 166 questionnaires were included in the study and further analyzed for results. Incomplete, partially filled or the pro-forma with multiple marked or ambiguous answers were excluded from the study. The qualitative data was expressed in terms of percentages. Data was then analyzed with SPSS version 22.

RESULTS

Out of total 300 distributed questionnaires among the medical students, we received 211 filled pro-forma, among which 45 (21.3%) students had not heard about swine flu. Remaining 166 completely answered questionnaires were further analyzed for result. 151 (91%) students correctly replied virus as the causative agent and 138 (83.1%) responded respiratory droplet as mode of transmission [Table 1]. Regarding treatment and prevention of swine flu, 123 (74.1%) replied it was treatable disease and a significant number of students (n=154, 92.8%) responded it was preventable. Only 42 (25.3%) respondents correctly answered that vaccination was the best measure to prevent swine flu. Only 71.7% students knew that there was a vaccine for swine flu (p-value 0.004) and about half of the participants (n=76, 45.8%) were not aware that vaccination was available in Pakistan (p-value 0.010) [Table 2].

DISCUSSION

Our study has several findings. Regarding epidemiology of swine flu, we observed that 78.7% of our participants knew about its occurrence, most (n=151, 91%) agreed that swine flu was caused by a virus while remaining claimed it as bacterial (n=08, 4.8%) and parasitic (n=07, 4.2%) infection. When asked about mode of transmission, 83.1% replied it through respiratory a droplet which is quite better than two studies, that documented that only 51% individuals had correct information about spread of this infection.^[12,13] Regarding awareness, treatment and prevention of swine flu, 123 (74.1%) students replied it was a treatable disease and only 102 (61.4%) students knew about treatment availability in Pakistan. It may be explained by tight and busy clinical schedule of medical students. Majority of them don't take part in awareness programs and seminars arranged for common epidemics. In our study, knowledge and awareness about vaccination of swine flu was not satisfactory. Similarly, when asked about the best measure to prevent swine flu, only 42 (25.3%) students replied it as vaccination (p-value 0.011). These findings of awareness about vaccination should be

| Sr. No. | Variable | Results | | Total |
|---------|----------------------------|-------------|-------------|-------|
| 1. | Ever heard about swine flu | Yes | 166 (78.7%) | 211 |
| | | No | 45 (21.3%) | |
| 2. | Causative agent | | | 166 |
| | - Virus | 151 (91%) | | |
| | - Bacterial | 08 (4.8%) | | |
| | - Parasitic | 07 (4.2%) | | |
| 3. | Mode of Transmission | | | 166 |
| | - Respiratory Droplet | 138 (83.1%) | | |
| | - Direct Contact | 19 (11.4%) | | |
| | - Blood Transfusion | 09 (5.4%) | | |

Table 1: Awareness about Epidemiology of Swine Flu

| Sr. No. | Variable | Results | | | <i>p-value</i> |
|---------|-------------------------------------|-------------|------------|-----------|----------------|
| | | Yes | No | No Answer | |
| 1. | Is it a treatable disease? | 123 (74.1%) | 42 (25.3%) | 01 (0.6%) | 0.040 |
| 2. | Treatment availability in Pakistan? | 102 (61.4%) | 64 (38.6%) | 00 (00%) | 0.111 |
| 3. | Swine flu preventable or not? | 154 (92.8%) | 12 (7.2%) | 00 (00%) | 0.011 |
| 4. | Any vaccination for swine flu? | 119 (71.7%) | 47 (28.3%) | 00 (00%) | 0.004 |
| 5. | Vaccination available in Pakistan? | 90 (54.2%) | 76 (45.8%) | 00 (00%) | 0.010 |
| 6. | Life Threatening Complication? | 146 (88%) | 20 (12%) | 00 (00%) | 0.002 |
| 7. | Best Measure to prevent swine flu? | | | | 0.011 |
| | - Hand Washing | 24 (14.5%) | | | |
| | - Use of face mask | 68 (41%) | | | |
| | - Isolation of Patient | 32 (19.3%) | | | |
| | - Vaccination | 42 (25.3%) | | | |

Table 2: Awareness about Treatment and prevention of Swine Flu

taken seriously as little knowledge about this important aspect of swine flu will badly affect the management of patients during outbreaks. Here lies the responsibility of medical educationists to engage medical & dental students in all types of seminars and awareness campaigns programs for common epidemics like swine flu, Dengue Fever and Congo Fever etc. because

medical students are the future diagnosticians and they should be motivated and encouraged to take part in common community based health programs.

It is also the responsibility of the medical education planners to include these common epidemics in the curriculum of medical students so that they may take interest right from the start of their medical career. As g

eneral public and community people are in touch with newspapers, television & social media and they have more knowledge and awareness about common epidemics and infectious diseases, it is also responsibility of medical students themselves to be aware of current issues of public health as they are the future doctors and they may face the public questions regarding these issues when epidemics are high, so their basic knowledge about common infectious disease should be improved and up to the mark.

CONCLUSION

Our study showed satisfactory findings regarding awareness about epidemiology of swine flu. Most of the respondents were aware about its etiology and mode of transmission. However, it was very alarming that 45 (21.3%) students even did not know about swine flu and low level of knowledge was observed about vaccination and preventive measures among our respondents. As awareness about epidemics is progressing among the general population through media, medical students should be up to the mark in this aspect. So there is a need for health education awareness programs in medical schools on regular basis. Proper motivational approach by constructing educational plans may be helpful to change individual's knowledge and awareness about epidemics.

LIMITATIONS

Our study has certain limitation. We conducted this study in the months of April – May 2019 which is not swine flu season. Knowledge and awareness about infectious diseases among the medical students as well as in other non-medical institutions and universities will be higher when these epidemics are at their peak. Secondly, in our medical institution, we don't have dental students, so we could not include dental students in our study. Thirdly, we could not divide the students in pre-clinical (1st year and 2nd year MBBS) and clinical (3rd year to final year MBBS) groups as knowledge and awareness of clinical group might be higher as compared to pre-clinical classes. Lastly, the sample size in our study was also small.

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CONFLICT OF INTEREST

The Authors declared no conflicts of interest.

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