

Awareness and Prevention of Swine Flu among Students of Maval Taluka of Pune district

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Abstract

Nine hundred students from Engineering and Pharmacy college of Talegaon Dabhade were contacted in their college after taking permission of their Principal. The purpose was to study their knowledge and awareness about prevention of Swine flu. Six hundred thirty males (70%) and 370 females (30%) participated in the study. Six hundred eighty eight (76.4%) were aware that cough, cold, fever, headache were the symptoms initially. For Seven hundred ninety five (88.33%) News paper, 749 (83.2%) TV, 744 (82.2%) Radio was the source of information. Five hundred six (56.1%) thought that foreigners visiting India are responsible for transmission of Swine flu in India. Seven hundred ninety-five (88.5%) were aware of the fact that Medicine is available for treatment, 580 (64.4%) could tell the name of Tami flu, three hundred thirty five (37.2%) were aware of the fact that the vaccine is available for prevention and 78 (8.7%) could also mention that Serum Institute of India Pune had manufactured the vaccine. The correct answers for medicine and vaccine were given by Pharmacy Students. Four seventy (52.3%) used scarf/mask/cloth to cover nose and 423 (95%) of them agreed to wash everyday and change it from time to time. About washing and disposal of mask nobody had clear idea so the explanation was given at the end to use soap or dettol for washing and mask should be burnt after repeated use to avoid spreading of infection. During 2009 when initially cases were detected educational institutes were closed to prevent transmission of Swine flu. In the holidays 181 (20.1%) students were playing on the ground, 187 (20.1%) travelled to other towns, Eighty two (9%) went to theatre to see movie. Actually it was expected they will sit at home and do not mix in the crowd, to prevent spread of infection. Four hundred ninety six (56.22%) were aware about the importance of washing hands. Conclusions and recommendations of the study were communicated to the students, through their teachers, by writing a letter.

Keywords : *Swine flue, Pune district*

Introduction

In the year 2009, Swine flue an acute respiratory illness was a threat to all India and the whole world as it was presented as a Pandemic with a serious complications leading to death. The mode of transmission being airborne and poor personal hygiene aggravated the situation. It was the responsibility of every individual to follow the instructions given by the health authorities. Frequently the

updating of advice regarding actions to be taken to protect oneself and prevent spread of swine flu was communicated to masses through mass media like News paper, TV, Radio. It was essential to study whether those messages had reached to masses and had community members modify their day to day activities, behaviour and life style.

Aims & Objective-

- 1) To study the awareness and prevention strategies among the undergraduate Engineering and Pharmacy students of Pune, Maval taluka.
- 2) To rectify the misconceptions in the subjects about dos and don'ts related to swine flu prevention.

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Materials and methods-

A cross sectional study was conducted amongst 900 students using a pretested predesigned, semi-structured self-administered questionnaire. The Principal MIMER MEDICAL COLLEGE TALEGAON DABHADE was informed and permission was taken from her to conduct the study. Talegaon dabhad, a town on Pune Lonavala railway track is a educational hub where medical, engineering ,polytechnic, pharmacy, arts, science, commerce colleges are available for students in the periphery to take advantage of these educational institutes.

- For Swine Flu, News paper, TV, Radio ,communication with friendss. Teachers and parents was the source of information. It was expected that everybody should be aware about the disease SWINE FLU and make use of the knowledge, updates in his behaviour to protect himself and his family members .As a faculty member of a MEDICAL COLLEGE and a teacher in Community Medicine ,we thought to test the awareness about prevention of SWINE FLU among the students and so the study was planned.
- A pretested questionnaire was used as a tool
- In the present study all the students of Engineering and Pharmacy College were included.
- After permission of the principals of those colleges two hour time slot was used. Consent of all the students was taken after explaining them the aim and need of the study .The Questionnaire was distributed to all the students . They were asked to fill up the answers to questionnaire in forty minutes.
- At the end the questionnaire was collected.
- The answers to all questions were discussed with the student, as the ultimate aim was to improve their knowledge about prevention of the disease and change in their behaviour
- Data was analysed using EPI Info and Microsoft excel

Results

Among 900 participants, 630 (70%) were males and 270 (30%) were females. The age group was 17 to 21 yrs. Majority of the participants were aged 17 & 18 years 528

(80.88%) . The participants from the mechanical engineering branch were 173 (19.22%) , computer engineering 156 (17.3%), Electronic and telecommunicating 153 (17%), followed by Pharmacy 144(16%,) general engineering 94(10.5%),petroleum engineering 68 (7.5%), IT 64 (7.1%),Civil 48(5.3)% respectively .

Majority of the participants answered that the symptoms of swine flu were cough and cold 688 (76.4%) some answered cold, cough and fever 595 (66.1%),Headache ,body ache and general malaise 189(20.1%) ,throat pain and infection 157(16.8%), Fever ,cough ,cold and throat symptoms 157 (16.8%.)

To the questions about the source of information for swine flu ,majority of the participants replied Newspaper 795 (88.3%), TV 749 (83.2%), from both TV and newspaper 744(82.6%),radio , parents ,friends and teachers (38.8%,42.8%,40.8%,30.1%) respectively , ,Others i.e. internet etc.14.4%.

When asked about the location and time period of the first case detected , majority answered March to August 338 (37.5%), and for place participants answered Mexico 275 (30.5%),Pune (7.8 %), others also gave answers such as California ,European countries ,Nashik ,Delhi etc. (2.3 %). Some of the participants did not know the answer to this question 317(35.2%).

To the question how did this disease come to India ,506(56.1%) answered Foreigners , Tourists 234(26%) , students coming from abroad 56 (6.2%).When asked about the spread of the disease majority answered Airborne 477(53%), contact with ill person 332 (36.8%), some answered contagious route ,improper hygiene and H1N1 virus spread (14.2%,3.4 %2.6%)respectively.

795 (88.5%) students knew availability of medicine and 580 (64.4%) answered Tamiflu correctly. 459 (60%), and 263 (29.2 %), students answered drug was available in government hospitals, and Naidu hospital, Pune respectively. When asked about any vaccination for this disease 565(62.77 %) answered No, while 335(37.2 %) answered yes, and when asked about the Indian manufacturing company of the vaccine 703(78.11%) did not know, while 78(8.7%) answered SERUM. INSTITUTE OF INDIA PUNE.

When asked how do you prevent spreading of the disease, majority of the participants answered by wearing mask 633 (70.33%), avoiding sick contact 258 (28.3%) maintaining proper hygiene 419 (46.5%).

When asked about the number of days their college was closed ,230 (25.5%) answered 1 week ,while 146 answered 2 weeks (14.6%), majority left the answer blank 524 (52.33%) indicating that their College was not closed or they did not remember the number of days of closure .The activities done during this period were playing outdoors with friends 181 (20.7%) ,Travel to another town 187 (20.7%) ,some went to the theatre 72 (9%) and tuitions 110 (12.2 %).Some stayed at home or did none of the already mentioned (10.5%, 43.11%) .

Four hundred seventy (52.2 %) of participants used the mask during epidemic, while the rest (430) 47.77% did not. Type of mask used, majority answered N95 but actually it was a simple mask 301 (33.44%), didn't know and 348(38.66%) did not use the mask, 33(3.77%) used the mask purchasd from medical shop and only 2(.22%) cotton /simple mask initially but gradually the number increased.

When asked about the price of the mask 340(37.77 %) gave answers between the range of 0-300 Rs while 497(55.22%) of the participants had no idea of the cost or did not use it. Majority of the participants disposed the mask by throwing it in the dustbin 171(19%),while 91(11.22%) burnt the mask and 101)53.55 % did not remember the way they disposed it off.

Four hundred seventy (52.2%) used a scarf/cloth instead of the mask, 46% (414) used the mask initially and then scarf, 75.5 % (680) participants used the scarf /cloth / mask while going to college or public places .857(95.22 %) participants agreed that the mask should be changed from time to time.

When asked about regular hand washing participants answered to prevent disease spread 496(55.11 %) were following it. Maintaining proper hygiene 29.77 %(268), proper sanitation 21.66 % (195)

. When asked about importance of balanced diet, vitamine C and adequate rest was answered by 414(46 %) to maintain good health and 348(38.66 %) answered to boost immunity.

98 (10.88 %) knew someone who suffered from Swine flu, 20 (2.2%) answered friends and neighbors.

When asked about where the test for swine flu is done 573(63.66 %) did not know,239(26.55%) said government hospitals, 12 (1.3%) said Naidu hospital Pune and 82(9.11 %) answered places like Delhi, Pune.

Finally when asked how to prevent such epidemics, participants answered

- i) wear mask 470(52.3%),
- ii) take vaccine 335(37.2%)
- ii) maintain proper personal hygiene 419 (46.5%)
- iii) Avoiding public contact 190(21.11%)
- iv) taking precautions 138(15.33%),
- v) creating public awareness 825(91.66%)
- vi) avoiding sick contact 258(28.3%).

Discussion

The study conducted among students of various engineering and Pharmacy colleges in different parts of Talegaon and surrounding areas shed the light on many important issues prevailing.

As far as signs and symptoms of the disease majority answered cough cold fever 595(66,1%) fulfilling the basic knowledge of the disease.

The awareness for the use of mask was well received through TV and newspapers 82.8%, 83.2 % respectively hence giving us the information that in future if such an epidemic was to arise these forms of media could be used to the fullest extent .TV and Newspapers being the most effective form of information In the present study 633(70.33%)used the mask .In the study carried out by Naik J D et al from Miraj 83 (38.2%)used the mask . as a preventive measure. The difference may be due to the fact that the present study group was young, daily travelling to attend college and coming in contact with teachers and friends to discuss the protective measures. .

Through this survey we came to the conclusion that 470(52.2 %) of the students used the mask regularly which is not a convincing enough percent .301(33.44 %) amongst these used the mask while 3.77% & 0.22% used the simple /cotton mask and cloth respectively .Awareness should be created about the dire need of mask usage

during such epidemics .Not only should there be awareness about the use of mask but also about the means of disposing it after use. The majority of students answered that they threw the mask in the dustbin after usage. This kind of disposal is very irrational and dangerous as it can lead to epidemics due to exposure. everybody should be made aware that even a cotton mask can be used but washed with proper detergent as well as an antiseptic like Dettol after every use ,when the time comes to discard this mask , it must be burnt and then thrown in the dustbin for safe disposal .This is a very cost effective and easy way of operating the mask .

This survey had a positive feedback on the knowledge of the students on the medications for swine flu, where 795(88.5 %)replied yes and580(64.4 %) answered correctly Tamiflu ,about 322(35.5%) of the students did not know the name of the medicine

.Out of the144 Pharmacy students 130(91.6%) could answer correctly the name of the drug ,116(82.6 %)of the students agreed that there was a vaccine for swine flu. .This proved that students who had subjects involving the topic of discussion had evidently more knowledge of it.

From the question about the number of days the college was closed we deduced how seriously this epidemic was taken by the authorities, 25.5 % answered 1 week which was appropriate enough time while 3.4 % answered 3 weeks which was too long and could hamper with the students education .

Awareness must be brought about to the masses about what should be done during this time period ,majority of the students did not answer this question 388(43.11%) while 181(20.1%) answered that they played with friends 187(20.7%) travelled to another town. These activities lead to spread of the epidemic even more .

This survey has shed light on practice of personal hygiene. Most of the students answered that hands must be washed to prevent disease spread 496 (55.11%).Everybody must be made aware of the techniques of thorough hand washing especially before touching the face.In the study of Dr J D Naik et al at Miraj 153 (70.50%)were following the practice of hand washing regularly. In their study population this awareness is well and better understood than the present study group

Awareness about the test for swine flu 573(, 63.6%) did not knowing the answer ie 327(36.4%) were aware about the test available, while in Naik J D et al study at Miraj 115(53%) were aware the test available

.Coming to the prevention of the epidemic majority of the students answered about the use of masks 470 (52.3%) and proper hygiene 419 (46.5%).

Awareness should be brought about by the proper prevention methods such as vaccine which are now available from the SERUM institute India .It is the single best way to protect against Swine.

Conclusion

- i) Majority of the students responded well.
- ii) To prevent the disease best personal hygiene, periodically thorough hand washing, is most important
- iii) During suspected epidemics use of cloth, home-made mask to cover nose is essential
- iv) Vaccination for prevention from getting a disease is a must and it should be followed when necessary.

Recommendations

1. Vaccination for one and all, to prevent such epidemics.
2. Awareness brought about through mass media such as TVs and Newspaper.
3. Use and Proper disposal of masks as recommended earlier.
4. Maintaining proper personal hygiene, specially frequent hand washing.

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