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Original Research Article

A Study to Assess Knowledge, Attitude and Practice Regarding Swine Flu

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ABSTRACT

Aims & Objective: To assess the knowledge, attitude and practice regarding swine flu among rural population of Kollam district, Kerala.
Materials and methods: The present cross-sectional study was carried out in March 2013 in the area around Azeezia Medical College, Meeyannoor (Dist. Kollam, Kerala). A total of 250 participants were included in the study by conventional sampling method from the 5 nearby villages.
Results: A common symptom of Swine flu such as fever was known to 71.40% while cough and cold were known to 62.40% of the respondents. Other symptoms such as myalgia and headache were known to 39.40% and 27.70% of the participants respectively of them had heard of Swine flu and were aware of it as a disease entity. Knowledge regarding the route of transmission was concerned 4.69% thought that swine flu spread by eating contaminated pork, 23.92% through food and water, 8.44% through mosquito bite and house flies. 56.33% were aware of the fact that swine flu could spread by inhaling infected aerosols. Availability of treatment and vaccine against swine flu were known to 56.80 % and 55.86% respectively. Mass media (TV, Radio, newspaper) was found to be the most common source of knowledge regarding swine flu for 74.18 % of the respondents.
Conclusions: Knowledge regarding swine flu was average among study population. TV, news channels and newspaper was found to be the most common source of information. Lack of awareness regarding key focus areas like hand washing as a preventive measure is of serious concern.

Key words: KAP study on swine flu.

INTRODUCTION

Swine flu is a major cause for concern among the common people of India and needless to say it has created fear across the various strata of the society. In April 2009, a new strain of influenza virus-A/H1N1, commonly referred to as "Swine flu", began to spread in several countries around the world. According to WHO estimates, 1/3rd of the world's population will be affected with H1N1flu within two years and India is no exception. Globally, India is ranked 3rd amongst the countries most affected, with respect to cases and deaths due to swine flu. [1] The number of cases in various countries in the subsequent three years is a reason good enough for it to be considered as a major emerging disease

as far as the global scenario is concerned. With context to India, the highest number of cases was reported in 2009(27,236), followed by 2010 (20,604) and 2012 (5,054 cases).The highest number of deaths due to swine flu took place in 2011 (1,763), followed by 2009 (981) and 2012 (405). [2]

Sheer volume of cases could easily overstretch already fragile and overburdened health services, especially in the developing countries, and cause considerable suffering in human populations around the world. [3] Swine flu has killed 261 people in India in the first 3 months of 2013, with most deaths reported from Rajasthan and Gujarat. A total of 2,329 people tested positive for the Influenza A (H1N1) virus, which causes Swine flu, in 35 states and union territories. [2] In Punjab, a northern state of India, total number of confirmed cases was 182 and 42 deaths. [4] These deaths initiated chain of media reports and local physician's articles on measures to prevent Swine flu being published in the newspaper dailies. When levels of worry are generally low, acting to increase the volume of mass media and advertising coverage is likely to increase the perceived efficacy of recommended behaviors, which, in turn, is likely to increase their uptake. [5] Trust in government/media information was more strongly associated with greater self-efficacy and hand washing; whereas trust in informal information was strongly associated with perceived health threat and avoidance behavior. [6]

"The Government has been successful in providing information to people on swine flu. Even television channels have played a major role in educating people by inviting doctors and experts in their studios every day to provide information about the deadly virus," Information &Broadcasting minister, Govt. of India said. [7] The best we citizens can do is to keep ourselves informed about the happenings and the steps we can take to prevent the spread of swine flu. [8] Prevention is the most appropriate measure to control H1N1 flu pandemic and creating awareness regarding H1N1 flu is ranked very high among preventive measures. The distribution of proper information to the public on the status of theH1N1virus pandemic will be important to achieve awareness of the potential risks and the optimum code of behaviour during the pandemic.

Aims & Objectives:

(1) To assess the knowledge, attitude and practice regarding swine flu among rural population of Kollam district, Kerala.

MATERIALS AND METHODS

The present cross-sectional study was carried out in March 2013 in the area around Azeezia Medical College, Meeyannoor (Dist. Kollam, Kerala). According to guidelines for conducting Knowledge, Attitude and Practice study, minimum sample size required for KAP study is 200 [9] but for the sample to be more representative of a population, a total of 250participants were included in the study by conventional sampling method from the 5 nearby villages. 50 participants were selected from each village by simple randomization. Inclusion criteria were age above 15 years and a resident of that village to avoid the bias. The study population was selected by simple randomization technique by randomly visiting houses, clubs, bus stops, churches etc. to achieve more representative sample. Out of total 250 respondents 67were housewives, 55 were businessmen, 12 were students, 9 were farmers, 17 were unemployed and 90 were others (govt. and private salaried employees). All the selected participants were interviewed through pre-tested and pre-designed questionnaire. This predesigned questionnaire consists of socio-

demographic characteristics (age, sex, education and occupation), knowledge, awareness, attitude and practice about the disease (nature, mode of spread/transmission, clinical features and preventive measures). The questionnaire was in Malayalam and English as the local language is Malayalam in the area of study. Respondent was having an option to select the preferred language. There were no refusals, as complete anonymity was ensured. The information thus collected was computerized in specific a program developed on Microsoft excel 2007 software and analyzed through Statistical Package for Social Science (SPSS 15.0) software program for Windows.

RESULTS

Study population consisted of 112 males and 138 females (total 250) (Table 1) of which, majority (56.8%) belonged to the age group 21-40 years (Table 2). Since 85.2% (213) of them had heard of Swine flu and were aware of it as a disease entity (Table 3), further analysis was performed on 213 participants. A common symptom of Swine flu such as fever was known to 71.40% while cough and cold were known to 62.40% of the respondents. Other symptoms such as myalgia and headache were known to 39.40% and 27.70% of the participants respectively (Table 4).

Table No.1: Sex wise distribution of population.

	Frequency	Percentage
Male	112	44.80%
Female	138	55.20%
Total	250	100%

Table No.2:Age wise distribution of population

	Frequency	Percentage
15-20 years	12	4.80%
21-40 years	142	56.80%
41-60 years	76	30.40%
61 and above	20	8.00%
Total	250	100%

Table No.3: Source of information

	Frequency	Percentage
Mass media	158	74.18%
Friends and Relatives	32	15.02%
Health worker	23	10.80%
Total	213	100%

Table No.4: Symptoms of swine flu

	Frequency	Percentage
Fever	152	71.40%
Bodyache	84	39.40%
Cough and cold	133	62.40%
Breathlessness	34	16%
Vomiting	21	9.90%
Loosemotions	21	9.90%
Headache	59	27.70%

As far as the knowledge regarding the route of transmission was concerned 4.69% thought that swine flu spread by eating contaminated pork, 23.92% through food and water, 8.44% through mosquito bite and house flies. 56.33% were aware of the fact that swine flu could spread by Inhaling infected aerosols (respiratory route) (Table 5). Most common mode of prevention i.e. hand washing was only known to 31.90% of the respondents. Only 27.70 % responded to avoiding unnecessary visit to crowded places as a precautionary measure. Use of face mask as a preventive measure against swine flu was known to 70.42% .8% and 1.40% participants believe that swine flu can be prevented by Ayurvedic and homeopathic medicines respectively (Table 6).

Table No.5: Route of transmission

	Frequency	Percentage
Inhalation	120	56.33%
Eating pork	10	4.69%
House flies and mosquitoes	18	8.44%
Food and water	51	23.92%
Don't know	13	7%
Total	213	100%

Table No.6: How swine flu can be prevented

Prevented by	Frequency	Percentage
Face mask	150	70.42%
Home stay	50	20%
Avoiding crowed places	59	27.70%
Ayurvedic medicine	17	8%
Homeopathic medicine	3	1.40%
Killing pigs	12	5.60%
Hand wahing	68	31.90%

Among the study population, only 3.60 % participants were illiterate while remaining 96.7% were literate. 83.60% of the participants were educated upto SSC and above (Table 7).

Table No.7: Distribution of population according to education

	Frequency	Percentage
Illiterate	9	3.60%
Primary	13	5.20%
Secondary	19	7.60%
SSC	68	27.20%
PUC	73	29.20%
Degree	35	14.00%
Professional	33	13.20%
Total	250	100%

Availability of treatment and vaccine against swine flu were known to 56.80 % (Table 8) and 55.86% (Table 9) respectively.

Table No.8: Treatment available on swine flu

	Frequency	Percentage
Yes	121	56.80%
No	39	18.30%
Don't know	53	24.88%
Total	213	100%

Table No.9: Any vaccine available on swine flu

Any vaccine available	Frequency	Percentage
Yes	119	55.86%
No	53	24.88%
Don't know	41	19.24%
Total	213	100%

Mass media (TV, Radio, newspaper) was found to be the most common source of knowledge regarding swine flu for 74.18 % of the respondents. Friends and relatives in 15.02 % and health worker in 10.80% were found as a source of knowledge regarding swine flu (Table 3). 52.11% of the participants knew that a diagnostic test was available to detect swine flu, 14.55% were not aware of the availability of a test to detect swine flu. (Table 10).

Table No.10: Test available to detect swine flu

Test to detect swine flu	Frequency	Percentage
Yes	111	52.11%
No	31	14.55%
Don't know	71	33.33%
Total	213	100%

DISCUSSION

Very few epidemiological studies on swine flu are available in India because of its recent origin since 2009.This is the first study of its kind among adults in the state of Kerala in India as per our knowledge. Nonetheless, few comparable studies from other states (Punjab,[14] Gujarat [10] and Uttar Pradesh [11]) and similar studies in other parts of globe were added in the literature in recent past.

In this study 85.20 % of the respondents had heard about swine flu which was lesser than that found in the other studies (88%in Punjab [14] ,94% in Vadodara [10] & 97% in Barielly [11] . Most common symptom of swine flu known to participants was fever (71.40%), whereas cough and cold which is a very common symptom was known to 62.40%, while in other study conducted in Punjab 68.10% of the participants were found to be aware of fever as a common symptom and cough cold as a symptom was known to 51.5% of the respondents. [14]

In this study major source of information 74.18% is mass media (TV, radio, news papers etc.) which is comparable with findings of other study conducted by Namrata Devi et al i.e. mass media is the major source of information (55%). [14]

56.33% of the respondents reported coughing and sneezing (i.e. respiratory route) by patient as the mode of transmission of Swine flu. In other studies it was higher, 77.2% in Barielly, [11] 82% in Vadodra,[10] 54% in Punjab. [14] In the present study, 23.92% participants thought swine flu spread through food and water, 8.44% through mosquito bite and house flies and 4.69% participants believed that swine flu could be transmitted by eating pork. Similar to our study Sumit Singh et al reported that in Punjab 21% of the respondents thought that swine flu spread by

contaminated food and water and 14% through house flies and mosquitoes. [14]

In our study, 70.42 % mention use of face mask as a way of prevention from swine flu whereas hand washing which is a very effective way to prevent swine flu transmission was known only to 31.90 %. These findings are comparable to the findings of other study conducted by Singh B et.al. [13] In contrast to our study, Rubin *et al*. in their study [12] reported high percentage (87.8%) of the interviewer believing that hand washing played an important role in reducing swine flu transmission and less respondent (24.3%) in favour of use of face mask in preventing swine flu spread. Also a study conducted in Punjab, 60.50% believed that swine flu can be prevented by wearing face mask and 36.5%reported that swine flu can be prevented by hand washing and maintaining personal hygiene. [14]

Knowledge of availability of treatment (56.80%), vaccine (55.86%) and test to detect swine flu (52.11%) was poor in comparison to other studies.

CONCLUSIONS AND RECOMMENDATIONS

In the present study TV, news channels and news paper was found to be the most common source from which common public get knowledge of swine flu as already found in other studies also. Lack of awareness regarding key focus areas like Hand washing as a preventive measure and Swine flu being spread by eating pork are serious concern. The role of the mass media is very important to create the awareness about swine flu in the community as most of the participants got knowledge of swine flu through mass media. Awareness generated by health staff is not significant. Training of the health worker in swine flu should be done. Health education sessions, seminars, workshops and symposia for creating awareness in all areas of urban as well as rural masses can be made more effective by involving Public Health Professionals to develop communication messages closely related to the pandemic situation to target the information needs of the public.

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