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Knowledge, Attitude and Practice of Community Members Regarding Influenza A H1N1 in Rajkot District, Gujarat, India

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ABSTRACT

Back ground: In 2009, a novel strain of influenza A H1N1 emerged from the USA and Mexico. The first confirmed case with the virus in India was documented in May 2009. After that, a large numbers of positive cases were reported throughout India. The objective of this study was to assess knowledge, attitude and practice (KAP) of community members regarding influenza A H1N1.

Methods: Out of 14 talukas of Rajkot district, a study was conducted in 7 talukas where positive cases of H1N1 Influenza A were reported by purposive sampling method during March 2015. Total 18 areas were surveyed and total 8 persons each from different family were interviewed, thus total of 144 such persons were interviewed.

Results: Most of the respondents were male. Almost half of participants were in age group 21-40 yrs. Majority of them were literate and educated up to secondary level. 93.75% of community members heard about influenza A H1N1. TV (57.78%) was the main source of knowledge.. 65.97% of community members had correct knowledge on any one key symptom of Influenza A (e.g. Fever/Cough/Sore throat). Majority (81.25%) of the persons consult Family/Private doctor for treatment of ARI.

Conclusion: Health care service provides and media should take lead in spreading awareness especially during transmission season so that can avoid panic in the community.

Keywords: Influenza A H1N1, Community, Knowledge, Attitude, Practice

INTRODUCTION

A novel strain of influenza A H1N1 firstly appeared from the USA and Mexico in 2009. Then after some time (in a few weeks) the virus spread around the world. These becomes the first pandemic of the 21st century.[1] According to experts opinion these would be highly virulent virus and it causes a great social alarm.[2] pandemic influenza plans were developed and implemented in most countries. Reporting and detection of disease were done in time.[3] A large number of studies were conducted during the pandemic. These studies showing e wide range in public perceptions[4] and adoption of non-pharmacological preventive measures and vaccination.[5, 6]

The first case of confirmed infection with the virus in India was documented in May 2009[7] but only few cases were reported till August 2009. After that, a large numbers of positive cases were reported throughout India. From Gujarat state, the first Influenza A H1N1 confirmed case was reported in June 2009.[8] Saurashtra region, in the western part of Gujarat state, reported its first case in August 2009.[9] All patients with confirmed infec-

tion were quarantined in isolation ward to prevent spread in the general population. Although many individuals presented with mild, self–limited illness, and no signs of pulmonary involvement, some people required intensive care and received maximal life support measures.[10, 11]

Compliance with preventive measures, e.g. non-medical action, is dependent on the attitude and willingness of the population and on the specific actions recommended by health authorities.[12-14] Precautionary behaviour results from a combination of social and psychological factors such as personal values, socio-economic status and cultural background, gender, education, knowledge, and beliefs about the disease, including perceived risks and perceived effectiveness of the proposed action.[13, 15-17] These factors may be specific to each target population and should be investigated to develop a locally adapted approach.[18,19] Understanding perceptions and reactions among the general public during pandemics may improve information and communication about health risks and help shifting attitudes among the general public.[20-22]

During the year 2015 large numbers cases of H1N1 Influenza reported across the country. Gujarat also reported large number of cases, maximum from Kutch district and some cases from the Rajkot District also. To understand the Acute Respiratory Tract Infection (ARI) and its treatment scenario through Knowledge, attitude, practice among community members the present study was conducted in Rajkot district of Gujarat in 2015.

OBJECTIVES

The study was conducted to assess the knowledge among community members regarding ARI and Influenza A (H1N1) and also to study attitude and practice regarding ARI and Influenza A (H1N1) among community members.

METHODS

Rajkot district has a population of 3,804,558 and has 14 talukas according to Census 2011. [23] List of confirmed cases of H1N1 Influenza A was obtained from Health Department, Jilla Panchayat, Rajkot reported during January and February 2015. The area having confirmed cases of H1N1 Influenza were selected for interview of community members.

Out of these 14 talukas, a KAP study was conducted in 7 talukas namely Jasdan, Jetpur, Jamkandorana, Lodhika, Morbi, Hadvad and Upleta where positive cases of H1N1 Influenza A were reported by purposive sampling method. Total 18 areas (taluka + their villages) were surveyed which were having cases of H1N1 Influenza A cases. From these areas total 8 persons each from different family were interviewed after taking oral consent for KAP on ARI, thus total of 144 such persons were interviewed. Total duration of study was 1 month i.e. March 2015. No ethical clearance taken.

This study was conducted by Faculty members, Resident doctors and Medical Social Workers of Community Medicine department, PDU Govt. Medical College, Rajkot using pretested semi-structured questionnaire.

The data entry was done in Microsoft Office Excel 2007 and analysis was done using the software package Epi Info 7 (3.5.3).

RESULTS

The present study was conducted among 7 talukas of Rajkot districts which had positives cases of influenza A H1N1 during March 2015.

Table-1: Socio demographic information, education and Source of information

Variables	Frequency (%)
Gender (n=144)	
Male	84 (58.33)
Female	60 (41.66)
Age (years) (n=144)	
10-20	24 (16.67)
21-40	60 (41.67)
41-65	45 (31.25)
>65	15 (10.41)
Literacy (n=144)	
Illiterate	52 (36.11)
Literate	92 (63.89)
Education level (n=92)	
Primary	24 (26.09)
Secondary	35 (38.04)
Higher secondary	20 (21.74)
Graduate & above	13 (14.13)
Occupation (n=144)	
Business	20 (13.89)
Services	11 (07.64)
Agriculture	25 (17.36)
Labour	30 (20.83)
Housewife	34 (23.61)
Students	24 (16.67)
Ever heard about "H1N1 Influenza A" (n=144)	
Yes	135 (93.75)
No	09 (6.25)
Most important source of knowledge (n=135)	
TV	78 (57.78)
News Paper	17 (12.60)
Relative/ Friend	28 (20.74)
Poster/banner	05 (03.70)
Doctor	03(02.22)
Other*	04 (02.96)

*Internet, mobile etc.

Table 2: Knowledge of community members on selected aspects of "H1N1 Influenza A" (Swine Flu) (n=144)

Knowledge	Yes (%)
Correct knowledge of any one key symptom of "Swine Flu" (Fever/Cough/Sore throat)	95 (65.97)
Correct knowledge of any one mode of transmission	61 (42.36)
Treatment of " H1N1 Influenza A (Swine Flu)" is possible or not	84 (58.33)
Prevention of " H1N1 Influenza A (Swine Flu)" is possible or not	87 (60.41)

Table 3: Routine health seeking behavior in case of Acute Respiratory Infection (n=144)

Health seeking behavior for Acute Respiratory Infection	Frequency (%)
Government Health facility	024 (16.67)
Family/Private doctor	117 (81.25)
Self medication	002 (01.39)
Not taking treatment	001 (00.69)

Table 4: Association between knowledge of people and selected socio demographic characteristics (n=135)

Variables	Knowledge		p value
	Adequate	Inadequate	
Gender			
Male	35 (57.38)	44 (59.46)	0.80
Female	26 (42.62)	30 (40.54)	
Age group			
10-20	9 (14.75)	13 (17.57)	0.91
21-40	28 (45.9)	30 (40.54)	
41-60	17 (27.87)	23 (31.08)	
>65	7 (11.48)	8 (10.81)	
Educational status			
Literate	54 (88.52)	36 (48.65)	0.00001
Illiterate	7 (11.48)	38 (51.35)	
Occupation			
Business	12 (19.67)	8 (10.81)	0.03
Services	6 (9.84)	5 (6.76)	
Agriculture	7 (11.48)	18 (24.32)	
Labour	6 (9.84)	19 (25.68)	
Housewife	16 (26.23)	14 (18.92)	
Students	14 (22.95)	10 (13.51)	

*p>0.05 statistically not significant

Table 1 explains that most of the respondents (58.33%) were male. 41.67% of participants were in age group 21-40 yrs. Majority of them were literate and educated up to secondary level. The highest percentages of them were house wife. 93.75% of community members were heard about swine flu (H1N1 influenza A) while 6.25% of persons were never heard about swine flu. TV (57.78%) was the main source of knowledge about H1N1 influenza A, it was followed by relative /friend (20.74%), news paper (12.60%), poster/banner (03.70%) and doctor (2.22%) as in table 1. Others things were also the source of information in community which includes the internet and mobile.

Table 2 shows that 65.97% of community members had correct knowledge on any one key symptom of Inlfuenza A (e.g. Fever/Cough/Sore throat). Only 42.36% of community members had correct knowledge of any one mode of transmission of swine flu in present study. In this study, 58.3% of persons believed that treatment of swine flu is possible and 60.41% of people believed that swine flu can be prevented.

Among the total 144, 63.89% of community members believed that they are ready to meet relatives who were admitted in hospital with Influenza A H1N1 while 36.11% of persons were not ready to meet their relatives when they were admitted in hospital for treatment.

Table 3 reported that in case of ARIs, majority (81.25%) of the persons consult Family/Private doctor, 16.67% go to Government health facility, 1.39% take self medication and 00.69% are not going to take any treatment.

Table 4 reveals the association between selected socio-demographic variables and knowledge. It shows significant association between knowledge of respondents, educational and occupational status, but no significant association between age and gender.

DISCUSSION

Influenza A viruses are responsible for the recurrent outbreaks at any parts of the world, and a serious threat to the human health and the global economy. Swine influenza virus infections I humans have been reported in United states, Canada and Europe and Asia. [24] An important strategy to combat with the situation is to encourage the public to adopt precautionary behaviors. Correct knowledge of the epidemic will be helpful for them for behavioral modification. A vast number of researches have examined the various levels of KAP about infectious disease outbreaks, such as SARS, avian influenza. [25-27]

Most of the respondents were male and were in age group 21-40 yrs. Majority of them were literate and educated up to secondary level. The highest percentages of them were house wife. Vietnam study reported similar findings. [28] 93.75% of community members were heard about swine flu (H1N1 influenza A) while study from Santander [29] reported that 97% of community members had heard about H1N1 influenza A. Study from Karnataka[30] noticed 73.6% of community members were

heard of H1N1 influenza A. TV was the main source of knowledge about H1N1 influenza A followed by relative /friend. Shilpa K et al.[30] in her study showed that in 52.2% of community members, source of information was Tele media (TV, radio, newspaper), friends and relatives in 6.5% and health care workers in 2.7%. Another study from Nepal[28] reported that in 64.6% of people source of information was Mass media (Radio, TV), family /relatives/friends in 36.7% and health personal/School teacher/social leader in 13.2%.

In present study, 65.97% of community members had correct knowledge on any one key symptom of Inlfuenza A (e.g. Fever/Cough/Sore throat). Urban community of Karnataka[25] showed that 82.6 % of persons had knowledge about key symptom like fever, 72.3% of people had knowledge of cough and 55.4% had knowledge of cold. Naik JD et al.[31] showed that 80.18% and 69.12% of people had knowledge of symptoms like fever and cough/cold respectively. Study from the Vietnam reveled that more than half of the respondents had inadequate knowledge. [28]

Only 42.36% of community members had correct knowledge of any one mode of transmission of swine flu in present study. Study from Maharashtra[31] reported 57% of people had correct knowledge of route of transmission. In this study, 58.3% of persons believed that treatment of swine flu is possible and 60.41% of people believed that swine flu can be prevented. Study from Vietnam[28] reported 85% of community members have believed that treatment of Influenza A H1N1 is possible and 90% of persons in the same study believed that it can be prevented.

Almost two third of community members believed that they are ready to meet relatives who were admitted in hospital with Influenza A H1N1. In case of ARIs, majority of the persons consult Family/Private doctor, while some go to Government health facility, few of them take self medication and very few are not going to take any treatment. Shilpa K et al.[30] study showed that more than half of people go to Government hospital for taking treatment, one third of persons go to private hospital and only one fifth consult the family physician.

Association between selected socio-demographic variables and knowledge shows significant association between knowledge of respondents, educational and occupational status, but no significant association between age and gender. Dayanand et al. study also shows the similar observations. [28]

CONCLUSION

Large majority of persons from community had heard about "Swine Flu". On asking single most important source for knowledge of "Swine Flu", more than half said Television is the main source of knowledge. About two third of persons from community have correct knowledge of any one of key symptoms of ARI i.e. Fever/Cough/Sore throat. But, only one third of persons have correct knowledge of any one mode of transmission of ARI. One third of persons are not willing to meet their relatives who have H1N1 Influenza, admitted in hospital. Almost four-fifth of families is taking treatment from private doctors and only one fifth from Govt. facility. Awareness should be increased with effective utilization of mass media. Health care service provides should take lead in spreading awareness especially during transmission season so that can avoid panic in the community.

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