International Journal of Community Medicine and Public Health
Vikhe MR et al. Int J Community Med Public Health. 2017 Oct;4(10):3888-3892
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20174269

Original Research Article

A cross-sectional study to assess knowledge, attitude and practices regarding H1N1 among AYUSH practioners at Panvel taluka

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Received: 14 August 2017
Revised: 08 September 2017
Accepted: 09 September 2017

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ABSTRACT

Background: The number of H1N1 cases and death in India in recent years is good enough reason to declare it as a major emerging disease. AYUSH practitioners have been newly integrated into the National Health Delivery System. As they are the first level of contact for the community, their knowledge, attitude and right practices can help in counteracting the spread of H1N1. The objective of the study was to assess knowledge, attitude and practices regarding H1N1 among AYUSH practitioners at Panvel taluka.
Methods: A cross sectional study was carried out during October-December 2015 among AYUSH practitioners practicing at Panvel taluka. A total of 225 AYUSH practitioners were included in the study by stratified probability proportional systematic random sampling. They were interviewed face to face by predesigned pretested questionnaire to assess knowledge, attitude and practices regarding H1N1. Attitude was measured on a four point Likert's scale. Data was analysed by mean, percentage and Chi–square Test using software SPSS (version 21).
Results: Only 32.4% had knowledge about period of infectivity by H1N1 virus. More than half (56.7%) knew incubation period of the disease.75% correctly answered on signs and symptoms of the disease. Only 25.3% knew the mode of administration of giving H1N1 live vaccine. 78.66% doctors strongly agreed that they can get infection and 82.66% agreed that they can be cured by the infection. Only 27.11% practitioners were vaccinated against H1N1. 43.12% doctors followed hand washing practice after seeing suspected case. 43.5% doctors used mask regularly at clinic. 59.6% doctors correctly prescribed drugs for prophylaxis and treatment of H1N1. 62.3% practitioners used to refer the patient in hospital designated by government for treatment of H1N1 cases.
Conclusions: AYUSH practioners had average knowledge and poor practices about H1N1 prevention which can be further improved by continuing medical education programme.

Keywords: H1N1, AYUSH Practitioner, Knowledge, Attitude, Practices

INTRODUCTION

Pandemic influenza occur when there is antigenic shift of the virus as a result of genetic reassortment or recombination of human virus with avian virus and animal virus, leading to novel subtype for which human population has no immunity. Novel H1N1 flu is an acute respiratory disease, caused by a strain of the influenza type A virus known as H1N1, officially referred as novel A/H1N1. The virus is a mixture of four known strains of influenza A virus: one endemic in humans, one endemic in birds and two endemic in pigs. Transmission of the new strain is human-to-human.

Symptoms include fever, cough, sore throat, body aches, headache, chills and fatigue. Flu can make chronic health problems worse. It is well documented that the influenza

virus is responsible every year for additional hospitalisations and mortality.

Three influenza viruses have caused major pandemics during the 20th century: the 1918 H1N1 virus (Spanish influenza), the 1957 H2N2 virus (Asian influenza), and the 1968 H3N2 virus (Hong Kong influenza).Global pandemics with high mortality and morbidity occur when a virulent new viral strain emerges, against which the human population has no immunity. The pandemic influenza A H1N1 2009 virus (A/2009/H1N1) caused the first pandemic influenza of the new millennium, and has affected more than 214 countries and caused more than 18,449 deaths.[1]

On August 13th, 2009, the World Health Organization reported that 1,82,166 laboratories confirmed cases of influenza A/H1N1, with 1799 deaths in 178 countries. In 2015, the incidence of swine flu increased substantially to reach 5-year highs with more than 10,000 cases and 774 deaths reported.[2] The number of H1N1 cases and deaths in India in recent years is good enough reason to declare it as a major emerging disease.[2]

Like the multifaceted culture in our country, traditional medicines have evolved over centuries blessed with a plethora of traditional medicines and practices. Department of Indian Systems of Medicine and Homoeopathy (ISM&H) was renamed as Department of AYUSH (an acronym for – Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homoeopathy) in November 2003.[3] Bringing AYUSH into the mainstream health care delivery system of the country has long been a major policy objective of the Ministry. Under the NRHM, AYUSH facilities are being set up in PHCs and CHCs and are being manned by qualified AYUSH physicians appointed on contract basis. AYUSH practitioners has been newly integrated into the National Health Delivery System.[3] AYUSH practitioners are important key persons in delivering health services in case of epidemic as they are the first level of contact for the community and their correct knowledge, positive attitude and right practices can help in counteracting the spread of H1N1. Thus, with this background present study was conducted to assess knowledge, attitude and practices of AYUSH practitioners about H1N1.

Objective

To assess knowledge, attitude and practices regarding H1N1 among AYUSH practitioners at Panvel Taluka.

METHODS

There are total 18 tribal villages in Panvel taluka. Study was carried out among AYUSH practitioners practising at these tribal villages for a period of three months (October-December 2015). A list of all practitioners practising different system of medicine in the area was compiled from those available with local medical association and representatives of drug companies. Sample size was calculated using formula with finite population.

$n^1 = Nz^2 / p\,(1-p)/d^2(N-1)+z^2p(1-p)$

(Where n=sample size with finite population correction; N=population size; z=z statistics for a level of confidence; p=Expected [proportion]; d=precision (d=0.05))

By using this formula where p=70% sample size of 205 was calculated, considering 10% attrition sample size further calculated as (205+20)=225.[4] Therefore, a total of 225 AYUSH practitioners were included in the study.

Total sample size was again divided into strata by stratified probability proportional systematic random sampling.

Thus total of 121 BAMS practitioners, 101 BHMS practitioners, 2 Siddha and Unani practitioners, 1 Yoga practitioners were included in the study.

A predesigned pretested questionnaire was developed to assess the knowledge, attitude and practices of AYUSH practitioners for H1N1. Knowledge questions included transmission, incubation period, isolation period, clinical features, prevention and treatment of H1N1 infection. A predetermined scale was assessed to grade the participants as having good, average, poor knowledge. A knowledge scale of equally weighted sub questions was used. One point (1) was given for correct response and zero (0) for incorrect answer. Percentage of all marks was calculated for all practitioners. Those scoring >70% were graded as having good knowledge, 50-70% as average, <50% as poor knowledge. Response on attitude was measured on 4 point Likert's scale. Questionnaire on practice were used to assess the actual compliance and practices of preventive measures by AYUSH practitioners.

Those practitioners who gave the consent & those practitioners practising for more than 6 months in that area were included in study.

Those practitioners because of their busy schedule were not able to give time were followed up for 3 times and were then excluded from study.

Institutional Ethical committee approved the study protocol.

Statistical analysis was performed using SPSS version 21.

RESULTS

The sociodemographic characteristics of practitioners are shown in Table 1. Majority of practitioners were in age

group of 24-34 yrs and having experience between 1-10 yrs.

Table 1: Demographic characteristics of AYUSH practitioners (n=225).

Demographic characteristics	Frequency (%)
Age (year)	
24-34	158 (70.2)
34-44	53 (23.6)
44-54	6 (2.7)
54-64	8 (3.6)
Sex	
Male	109 (48.4)
Female	116 (51.6)
Experience (year)	
1-10	180 (80)
11-20	31(13.8)
21-30	11(4.9)
31-40	3(1.3)

The response related to knowledge about H1N1 in AYUSH practitioners is shown in Table 2. Only 32.4% had knowledge about period of infectivity by H1N1 virus. More than half knew the incubation period of disease.75% correctly answered on signs& symptoms of the disease. 25.3% knew the mode of administration of giving H1N1 live vaccine.

As seen in Figure 1, only 16.44% practitioners had good knowledge, 76.44% had average knowledge and 7.12% had poor knowledge about H1N1.

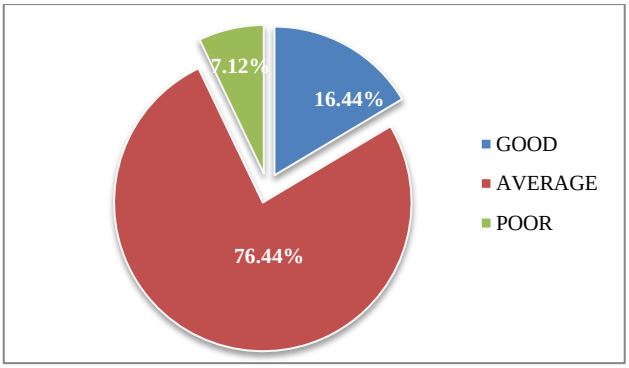

Figure 1: Level of knowledge among AYUSH practitioners.

The level of attitude of AYUSH practitioners regarding H1N1 shown in Table 3. 95.11% doctors strongly disagree that they hesitate in treating patient with H1N1 infection. 73.33% disagree that disease is getting unnecessary attention. 78.66% doctors strongly agreed that they can get infection.82.66% agreed that they can cured by infection.

Practices among AYUSH practitioners regarding H1N1 shown in Table 4. 43.12% doctors followed hand washing practice after seeing suspected case. 14.28% doctors use face mask (N95) regularly at clinic. Only 27.11% practitioners were vaccinated against H1N1. 59.6% doctors correctly prescribed drug for prophylaxis and treatment of H1N1. 62.35% practitioners used to refer the patient in hospital designated by government for treatment of H1N1 cases.

Table 2: Knowledge of AYUSH practitioners regarding H1N1 (n=225).

Knowledge	Correct knowledge (%)
Basic knowledge	
1) Who are at risk for H1N1 infection?	141 (62.7)
2) Does infected person spread virus to others?	73 (32.2)
3) What is the period of infectivity of H1N1?	74 (44)
4) What is the viability of H1N1 on surface?	46 (20.4)
5) What is the temperature at which virus is destroyed?	73 (43.6)
6) How will you isolate the virus?	98 (43.6)
7) What is the incubation period of H1N1?	127 (56.7)
8) What is the mode of transmission of H1N1?	225 (100)
9) What are the symptoms of H1N1?	170 (75)
10) What is the tests available diagnosis of H1N1?	74 (44%)
Mask knowledge	
11) N 95 mask is effective in reducing infection	185 (82.2)
12) Is surgical mask as effective as N 95 mask?	117 (52)
Vaccine knowledge	
13) What is the preferred mode of giving live H1N1 vaccine?	58 (25.7)
Treatment knowledge	
14) Name the drug available for H1N1?	134 (59.6)
15) What is the dose of drug?	134 (59.6)
16) Which hospital in your area is designated for treatment and referral of H1N1 infection?	140 (60.2)

Table 3: Attitude of AYUSH practitioners regarding H1N1 (n=225).

Attitude of practitioners	Agree (%)	Strongly agree (%)	Disagree (%)	Strongly disagree (%)
1) You are at risk of getting infection?	13 (5.8)	176 (78.66)	6 (2.66)	43 (19.11)
2) will you get cure if you get infected by H1N1?	20 (8.9)	186 (82.66)	14 (6.22)	25 (11.11)
3) All cases infected by H1N1 virus causes death?	10 (4.4)	0	73 (32.44)	152 (67.55)
4) Do you hesitate in treating patients with H1N1 infection?	9 (4)	0	11 (4.88)	214 (95.11)
5) Is H1N1 is serious Illness?	137 (60.88)	63 (28)	4 (1.77)	21 (9.33)
6) Is the disease getting unnecessary attention?	15 (6.7)	0	165 (73.33)	60 (26.66)

Table 4: Practices of AYUSH practitioners regarding H1N1 (n=225).

Practices among AYUSH practitioners	No. of practitioners	Frequency (%)
1) No. of practitioners vaccinated against H1N1	61	27.11
2) No. of practitioners following hand washing practice after seeing patients	97	43.12
3) No of practitioners using mask regularly at clinic	32	14.28
4) No of practitioners referring patients to government designated hospital.	140	62.3
5) No of practitioners correctly prescribe drugs for prophylaxis and treatment of H1N1	134	59.55

DISCUSSION

The results of present study offer insight about knowledge, attitude and practices towards Influenza A/ H1N1 infection among AYUSH practitioners which will help us to provide scientific support to assist health sector authorities in developing strategies and health education campaign to prevent transmission of H1N1.

AYUSH practitioners are important key persons in delivering the health services in case of epidemic as they come in first contact with patient. To deliver the health services in an effective manner, they should have sound knowledge and practices regarding the disease. There are very few studies available on this topic among AYUSH practitioners from India.

Finding of our study suggested that knowledge among AYUSH practitioners was fairly good. On an encouraging note, our research finding revealed that all practitioners knew about transmitting agent and mode of transmission of disease. This finding is similar to a study conducted by Rajora et al which was conducted in multispecialty teaching hospital in Delhi, India where in all resident doctors knew that influenza was caused by virus and is transmitted by droplets.[5] Our finding on awareness of causative agent of the disease was more than a study done by Datta, et al at Pondicherry which was conducted among paramedical workers in an tertiary care hospital where in 91% workers knew about the agent and mode of transmission of H1N1.[6]

A study by Sharma et al showed that symptoms of H1N1 were known to only half of the interns which is very less compared to our general practitioners (75%).[7] The difference in knowledge may be because of case found in and around Mumbai. Also the difference in group of health care worker does not allow true comparison.

The period of infectivity of H1N1 begins the day before the onset of illness and can persist up to 5-7 days. It is of concern that in our study AYUSH practitioners lacked sufficient knowledge about the period of infectivity [44%]. Our findings are almost similar to study among dental practitioners in Nellore of AP conducted by Kappa et al.[8]

56.7% AYUSH practitioners knew the correct incubation period of H1N1, Our finding was much less than that was observed in 93.2% doctors and 68.8%nurses in a study of swine flu (H1N1) epidemic among health care provider of a medical college of new Delhi.[5]

Regarding attitude towards H1N1 in our study, 78.66% practitioners agreed that they are at risk of getting infection by H1N1 virus which is much higher than the perception by dental practitioners at Nellore District.[8] The difference might be probably due to number of cases reported in their community.

AYUSH practitioners in our study had favourable attitude towards the curability of disease. Most of practitioners believe that H1N1 is mild disease and doesn't cause mortality. This finding almost similar to study conducted among dental practitioners in Nellore district of Andhra Pradesh.[8]

Current study also shed light on AYUSH practitioners H1N1 vaccine coverage. Health care workers have greater exposure to influenza cases as compared to general population. It is therefore important for them to

use all that preventive measure. They are identified as first priority to be vaccinated against influenza A (H1N1). Only small proportion of practitioners (27.1%) where vaccinated against H1N1 which is consistent with survey finding in Turkey with vaccination coverage of (23.1%).[9] By contrast, the figure is very low compare to other study conducted among Dutch general practitioners where in general practitioners where vaccinated against H1N1.[10] This difference might be due to the practitioners belief on lack of effectiveness of H1N1 vaccine.

In our study very few practitioners i.e. (14%) use N95 mask all the time at clinic. Our finding is almost same to a study carried out among interns at tertiary care hospitals Pune where 12.76% interns used N95 mask all the time during their duty hours.[11] Two anti viral drugs Tami flu (Osaltamivir) and Relanza (Zanamivir) are recommended for treatment and for prophylaxis of H1N1. In our study uses of these drugs was known to more than 50% practitioners. Our finding was lower than study conducted among doctors of medical college hospital of Delhi where 95% doctors knew about drugs.[5] These differences might be due the fact that practitioners might not be trained for the same.

CONCLUSION

AYUSH Practitioners knowledge, attitude and practices about the Influenza disease are important due to their role model to general population. Our study indicated that practitioners had average knowledge and poor practices about H1N1 prevention.

Recommendations

Knowledge and poor practices about H1N1 prevention can be further improved by continuing medical education programme. Communication and provision of updated information will also help in improving vigilance & preparedness to delay the epidemic. There is also an immediate need for spreading awareness about the vaccine and its role in preventing H1N1 among AYUSH practitioners.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Vikhe MR, Relwani NR, Anjenaya S. A cross-sectional study to assess knowledge, attitude and practices regarding H1N1 among AYUSH practioners at Panvel taluka. Int J Community Med Public Health 2017;4:3888-92.