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Original Research Article

Awareness regarding the strategies to bring down the pandemic among general population: a questionnaire based study

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ABSTRACT

Background: The behavior of the general public will likely have an important effect on how the coronavirus disease 2019 (COVID-19) epidemic spreads, especially when the first wave is diminishing. The aim of the study is to determine the awareness regarding the strategies to bring down the pandemic among the general population of Tamil Nadu in South India.

Methods: A cross-sectional online survey conducted in October 2020. A sample of consenting 500 adult, healthy caregivers of patients attending a tertiary medical institute who were representative of the general population formed the study group. They filled a pre-formed questionnaire. All data entry and analysis were performed using SPSS (version 24). Descriptive statistics and chi-square test were performed between the various sociodemographic factors of age, gender, occupation, and education, and COVID-19 exposure in the family. $P \leq 0.05$ was taken to be significant.

Results: It was observed that age had a significant influence on the wearing of masks and the use of hand sanitizer. Gender, age and education are the important determinants for use of hand sanitizer, wearing a mask, practicing social distancing, avoid traveling to the infected areas as well as washing hands often and always using a facemask to prevent COVID-19 were statistically significant.

Conclusions: The dynamics of the impact of the awareness campaign and public participation are understood by the results. There is a need for a training program with respect to locale-specific scenario targeted to a specific cluster of population emplaning upon their respective lifestyle, to improve the knowledge and compliance about risk and preventions.

Keywords: Awareness, COVID-19, Education, Handwash, Impact, Mask, Sanitizer

INTRODUCTION

The novel Corona Viral Disease of 2019 (COVID-19) was declared as a pandemic in March 2020 and spread at an unimaginable rate causing a heavy burden on worldwide healthcare systems, forcing almost most of the countries to apply quarantine rules. COVID-19 traits such as high transmission rates, long incubation period - 7 to 14 days – and global spread, infecting hundreds of thousands of people, indicated that the virus needed to be tackled with careful design and planning. Initial reports

from China revealed that the primary symptoms of Covid-19 to be fever, dry coughs, and shortness of breath. As there was a lack of appropriate vaccine or cure for treating and managing these patients, the best way in current situation is paying special attention to disease prevention and breaking the transmission chain of the virus. There was no clear cut evidence on route of infection and portal of entry of virus into humans. Hence at the initial phases of infection, experts believed that COVID-19 prevention would requires stringent personal and public hygiene, especially related to respiratory and

contact. These includes washing hands with soap or alcohol “medical grade sanitizers” for at least twenty seconds, reducing interactions with other people to the minimum, quarantining people who have come into contact with anyone infected as well as advices to wear mask when interacting with people and maintaining social distancing of 6 feet. Actions like these need a social awareness from both the authorities and the population at large, in order to handle the COVID-19 situation quickly and safely. These advisories were strictly implemented with fines and other legal monitoring guidelines.^{1,2}

Since late May 2020, India began “COVID-19” unlocking procedures. Tamil Nadu reported its first COVID-19 case on 5th March 2020 and the earliest clusters of locally acquired cases emerged in March in Chennai and surrounding coastal districts of eastern Tamil Nadu. Of all districts, Chennai ultimately experienced the highest cumulative incidence of COVID-19, totaling 102,199 cases (204.6 per 10,000 population) by 1 August 2020. The overall secondary attack rate (or risk of transmission from an index case to an exposed contact) in Tamil Nadu was 10.7% for high-risk contacts, who had close social contact or direct physical contact with index cases without protective measures, and 4.7% for low-risk contacts, who were in the proximity of index cases but did not meet these criteria for high-risk exposure. There has been data available about exposure settings for 18,485 contacts of 1343 index cases. This revealed considerable differences in transmission risk associated with differing types of interaction. Secondary attack rate estimates ranged from 1.2% in health care settings to 2.6% in the community and 9.0% in the household.³ Given these figures in Tamil Nadu, a pilot attempt was made assess the Chennai, India general public’s awareness on COVID-19 mitigation strategies and observe the effect of common socio-demographic factors on such awareness. Such as study would help to frame future studies and design loco-regional specific health policies.

METHODS

This cross-sectional survey was conducted from October 1st to October 31st 2020, to assess the Chennai, India general public’s awareness on COVID-19 mitigation strategies. As the disease process is dynamic at the phase of study in Chennai, India, a convenient sample of 500 was done to get the initial screening estimate to plan future studies. The survey questionnaire included both prompted direct questions as well as unprompted open ended questions that allowed for multiple responses. The Coronavirus related questions on infection spread were aggregated in the questionnaire from sources of information, knowledge about Coronavirus spread, precautions and widely advised government prevention practices. Before the final survey was undertaken, changes were made as required to enable better understanding of the questions by the participants, and

the arrangement of the questions was looked into to ensure its efficiency. English and vernacular translation (after back translation verified independently) was circulated.

Data collection

While maintaining social distance, the survey was done among the public attending the institution. People who were attending the Outpatient ward with no disease (attenders of patients) were asked to participate in the survey and directed to complete the questionnaire. The survey started with a sentence that “completing the questionnaire by the participants is considered as voluntary participation”. After confirmation that participants understood this, people were guided to complete the self-report questionnaire. On average, questionnaires took approximately 5 minutes to complete.

Data analysis

All data entry and analysis was performed using statistical package for social services (version 24). Descriptive statistics and chi-square test were performed between the various sociodemographic factors of age, gender, occupation, education and COVID-19 exposure in the family. $P \leq 0.05$ was taken to be significant.

RESULTS

In all 500 valid, completed, consenting participants data were collected for the purpose of this study. Participant’s awareness of the preventive measure towards COVID-19. The socio-demographic parameter’s frequency and distribution are depicted in Table 1. The overall report of the study population (n=500) is also shown in Table-1. The Table 2 shows the effect of age on the various study parameters. Of that, it was observed that age had a significant influence on the wearing of mask, use of hand sanitizer and isolation to be significantly varying between different age group ($P=0.000$). Table 3 shows the study population (n=500) classified by the gender shows that using hand sanitizer and wearing mask often and avoid travel to infected area often shows a significant result. Table 4 classifies according to the occupation and shows that using hand sanitizer, wearing mask often, practicing social distancing, washing hands often and avoiding travel to infected area and following these measures are effective and statistically significant. Table 5 classifies the familial impact of COVID-19 exposure in the study population (n=500) the measure such as practicing social distancing, avoiding travel to infected area are statistically significant. The Table 6 classifies according to the level of education and shows that isolating people from infected area and using hand sanitizer, wearing mask, practicing social distancing, avoid travelling to infected area and washing hands often and always using face mask to prevent COVID-19 are statistically significant (Table 1-6).

Table 1: Socio-demographics and consolidated replies by the participants (n=500).

Socio-demographics		Frequency	Percent
Age group	25 years and below	59	11.8
	26 to 35 years	107	21.4
	36 to 45 years	116	23.2
	46 to 55 years	123	24.6
	Above 56 years	95	19
Gender	Female	266	53.2
	Male	234	46.8
Academic Qualification	No Formal	90	18
	Primary	56	11.2
	Middle	86	17.2
	Higher Secondary	148	29.6
	Collegiate	120	24
Nature of employment	Managerial	168	33.6
	Others	34	6.8
	Professional	51	10.2
	Skilled	211	42.2
	Unskilled	36	7.2
Are you aware of COVID-19?	Yes	500	100
Any family member suffered from COVID-19	No	434	86.8
	Yes	66	13.2
Avoid social distancing to prevent COVID-19 spread	Yes	500	100
Wear mask to prevent spread of COVID-19	Yes	500	100
Use hand sanitizer to prevent spread of COVID-19	No	16	3.2
	Yes	484	96.8
Isolating people from infected area would prevent COVID-19 spread	No	5	1
	Yes	495	99
How often do you wear mask?	Always	479	95.8
	Sometimes	21	4.2
How often do you practice social distancing	Always	443	88.6
	Rarely	10	2
	Sometimes	47	9.4
How often do you avoid travel to infected area	Always	387	77.4
	Rarely	12	2.4
	Sometimes	101	20.2
How often do you wash hands	Always	419	83.8
	Rarely	5	1
	Sometimes	76	15.2
Do you think chemical disinfectant can prevent COVID-19	No	12	2.4
	Yes	488	97.6
Do you think COVID-19 can be disinfected by natural substances like turmeric etc.,	No	6	1.2
	Yes	494	98.8
Do you think that to prevent contracting and spreading of COVID-19 avoiding unnecessary vacations, consuming outdoor food, avoiding going out of home, avoiding hand shaking hugging and kissing, avoiding public transportation, frequently washing hands will be more effective?	No	3	0.6
	No Opinion	103	20.6
	Yes	394	78.8
When do you use face mask to prevent COVID-19 contracting	Always	362	72.4
	Only in public and crowded places	138	27.6

Table 2: Chi-square test result of various study parameters by the age group.

Various study parameters		25 years and below		26 – 35 years		36 – 45 years		46 to 55 years		56 years and above		P value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Avoid social distancing to prevent COVID-19 spread	Yes	59	11.80	107.0	21.40	116.0	23.20	123.0	24.60	59	11.80	Not Computable
	Wear mask to prevent spread of COVID-19	59	11.80	107.00	21.40	116.00	23.20	123.00	24.60	59	11.80	Not Computable
Use hand sanitizer to prevent spread of COVID-19	No	0	0.00	0.00	0.00	5.00	31.25	1.00	6.25	0	0.00	0.000
	Yes	59	12.19	107.00	22.11	111.00	22.93	122.00	25.21	59	12.19	
Isolating people from infected area would prevent COVID-19 spread	No	0	0.00	0.00	0.00	0.00	0.00	5.00	100.00	0	0.00	0.004
	Yes	59	11.92	107.00	21.62	116.00	23.43	118.00	23.84	59	11.92	
How often do you wear mask?	Always	54	11.27	107.00	22.34	110.00	22.96	118.00	24.63	54	11.27	0.095
	sometimes	5	23.81	0.00	0.00	6.00	28.57	5.00	23.81	5	23.81	
How often do you practice social distancing	Always	49	11.06	97.00	21.90	104.00	23.48	103.00	23.25	49	11.06	0.000
	Rarely	5	50.00	5.00	50.00	0.00	0.00	0.00	0.00	5	50.00	
	Sometimes	5	10.64	5.00	10.64	12.00	25.53	20.00	42.55	5	10.64	
How often do you avoid travel to infected area	Always	47	12.14	81.00	20.93	81.00	20.93	98.00	25.32	47	12.14	0.000
	Rarely	0	0.00	0.00	0.00	12.00	100.00	0.00	0.00	0	0.00	
	Sometimes	12	11.88	26.00	25.74	23.00	22.77	25.00	24.75	12	11.88	
How often do you wash hands	Always	54	12.89	91.00	21.72	96.00	22.91	108.00	25.78	54	12.89	0.000
	rarely	0	0.00	0.00	0.00	0.00	0.00	5.00	100.00	0	0.00	
	Sometimes	5	6.58	16.00	21.05	20.00	26.32	10.00	13.16	5	6.58	
Do you think chemical disinfectant can prevent COVID-19	No	1	8.33	3.00	25.00	2.00	16.67	1.00	8.33	1	8.33	0.280
	yes	58	11.89	104.00	21.31	114.00	23.36	122.00	25.00	58	11.89	
Do you think COVID-19 can be disinfected by natural substances like turmeric etc.,	No	1	16.67	1.00	16.67	1.00	16.67	3.00	50.00	1	16.67	0.551
	Yes	58	11.7	106	21.5	115	23.3	120	24.3	95	19.2	
Do you think that to prevent contracting	No	1	33.33	1.00	33.33	0.00	0.00	0.00	0.00	1	33.33	0.173
	No Opinion	10	9.71	25.00	24.27	26.00	25.24	16.00	15.53	10	9.71	

Continued.

Various study parameters		25 years and below	26 – 35 years	36 – 45 years	46 to 55 years	56 years and above	P value					
and spreading of COVID-19 avoiding unnecessary vacations, consuming outdoor food, avoiding going out of home, avoiding hand shaking hugging and kissing, avoiding public transportation, frequently washing hands will be more effective?	Yes	48	12.18	81.00	20.56	90.00	22.84	107.0	27.16	48	12.18	
	When do you use face mask to prevent COVID-19 contracting	Always	43	11.88	76.00	20.99	74.00	20.44	87.00	24.03	43	11.88
	Only in public and crowded places	16	11.59	31.00	22.46	42.00	30.43	36.00	26.09	16	11.59	

Table 3: Various study parameters by the gender (n=500).

Study parameters		Sex				P value
		Female		Male		
		Count	Row N %	Count	Row N %	
Avoid social distancing to prevent COVID-19 spread	Yes	266	53.20	234	46.80	Not computable
Wear mask to prevent spread of COVID-19	Yes	266	53.20	234	46.80	Not computable
Use hand sanitizer to prevent spread of COVID-19	No	15	93.80	1	6.20	0.001
	Yes	251	51.90	233	48.10	
Isolating people from infected area would prevent COVID-19 spread	No	1	20.00	4	80.00	0.149
	Yes	265	53.50	230	46.50	
How often do you wear mask?	Always	261	54.50	218	45.50	0.005
	Sometimes	5	23.80	16	76.20	
How often do you practice social distancing	Always	238	53.70	205	46.30	0.805
	Rarely	5	50.00	5	50.00	
	Sometimes	23	48.90	24	51.10	
How often do you avoid travel to infected area	Always	213	55.00	174	45.00	0.000
	Rarely	12	100.00	0	0.00	

Continued.

Study parameters	Sex				P value	
	Female		Male			
	Count	Row N %	Count	Row N %		
How often do you wash hands	Sometimes	41	40.60	60	59.40	0.057
	Always	225	53.70	194	46.30	
	rarely	0	0.00	5	100.00	
	Sometimes	41	53.90	35	46.10	
Do you think chemical disinfectant can prevent COVID-19	No	9	75.00	3	25.00	0.106
	yes	257	52.70	231	47.30	
Do you think COVID-19 can be disinfected by natural substances like turmeric etc.,	No	2	33.30	4	66.70	0.285
	Yes	264	53.40	230	46.60	
Do you think that to prevent contracting and spreading of COVID-19 avoiding unnecessary vacations, consuming outdoor food, avoiding going out of home, avoiding hand shaking hugging and kissing, avoiding public transportation, frequently washing hands will be more effective?	No	0	0.00	3	100.00	0.124
	No Opinion	59	57.30	44	42.70	
	Yes	207	52.50	187	47.50	
When do you use face mask to prevent COVID-19 contracting	Always	199	55.00	163	45.00	0.118
	Only in public and crowded places	67	48.60	71	51.40	

Table 4: Study population (n=500) compared by nature of occupation (n=500).

		Managerial		Others		Professional		Skilled		Unskilled		P value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Avoid social distancing to prevent COVID-19 spread	Yes	168	33.6	34	6.8	51	10.2	211	42.2	36	7.2	Not computable
Wear mask to prevent spread of COVID-19	Yes	168	33.6	34	6.8	51	10.2	211	42.2	36	7.2	Not computable
Use hand sanitizer to prevent spread of COVID-19	No	1	6.2	0	.0	0	.0	10	62.0	5	31.2	0.000
	Yes	167	34.5	34	7.0	51	10.5	201	41.5	31	6.4	
Isolating people from infected area would prevent COVID-19	No	4	80.0	0	.0	0	.0	1	20.0	0	0	0.282
	Yes	164	33.1	34	6.9	51	10.3	210	42.4	36	7.3	

Continued.

		Managerial		Others		Professional		Skilled		Unskilled		P value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
spread												
How often do you wear mask?	Always	168	35.1	29	6.1	50	10.4	206	43.0	26	5.4	0.000
	Sometimes	0	.0	5	23.8	1	4.8	5	23.8	10	47.6	
How often do you practice social distancing	Always	152	34.3	29	6.5	46	10.4	185	41.8	31	7.0	0.001
	Rarely	0	.0	0	.0	5	50.0	5	50.0	0	.0	
	Sometimes	16	34.0	5	10.6	0	.0	21	44.7	5	10.6	
How often do you avoid travel to infected area	Always	129	33.3	25	6.5	36	9.3	171	44.2	26	6.7	0.000
	Rarely	7	58.3	0	.0	0	.0	0	.0	5	41.7	
	Sometimes	32	31.7	9	8.9	15	14.9	40	39.6	5	5.0	
How often do you wash hands	Always	143	34.1	30	7.2	45	10.7	175	41.8	26	6.2	0.032
	Rarely	5	100.0	0	.0	0	.0	0	.0	0	.0	
	Sometimes	20	26.3	4	5.3	6	7.9	36	47.4	10	13.2	
Do you think chemical disinfectant can prevent COVID-19	No	3	25.0	0	.0	3	25.0	6	50.0	0	.0	0.307
	Yes	165	33.8	34	7.0	48	9.8	205	42.0	36	7.4	
Do you think COVID-19 can be disinfected by natural substances like turmeric etc.,	No	5	83.3	0	.0	1	16.7	0	.0	0	.0	0.087
	Yes	163	33.0	34	6.9	50	10.1	211	42.7	36	7.3	
Do you think that to prevent contracting and spreading of COVID-19 avoiding unnecessary vacations, consuming outdoor food, going out of home, avoiding hand shaking hugging and kissing, public transportation, frequently washing hands will be more effective?	No	1	33.3	0	.0	0	.0	1	33.3	1	33.3	0.004
	No Opinion	39	37.9	0	.0	3	2.9	52	50.5	9	8.7	
	Yes	128	32.5	34	8.6	48	12.2	158	40.1	26	6.6	
when do you use face mask to prevent COVID-19 contracting	Always	117	32.3	23	6.4	36	9.9	164	45.3	22	6.1	0.171
	Only in public and crowded places	51	37.0	11	8.0	15	10.9	47	34.1	14	10.1	

Table 5: Study population (n=500) compared by immediate family member suffering from COVID-19.

		Any Family Member Suffered from COVID-19				P value
		No		Yes		
		Count	Row N %	Count	Row N %	
Avoid social distancing to prevent COVID-19 spread	Yes	434	86.80	66	13.20	Not computable
Wear mask to prevent spread of COVID-19	Yes	434	86.80	66	13.20	Not computable
Use hand sanitizer to prevent spread of COVID-19	No	15	93.75	1	6.25	0.352
	Yes	419	86.57	65	13.43	
Isolating people from infected area would prevent COVID-19 spread	No	5	100.00	0	.00	0.491
	Yes	429	86.67	66	13.33	
How often do you wear mask?	Always	418	87.27	61	12.73	0.129
	Sometimes	16	76.19	5	23.81	
How often do you practice social distancing	Always	394	88.94	49	11.06	0.000
	Rarely	10	100.00	0	.00	
	Sometimes	30	63.83	17	36.17	
How often do you avoid travel to infected area	Always	339	87.60	48	12.40	0.000
	Rarely	5	41.67	7	58.33	
	Sometimes	90	89.11	11	10.89	
How often do you wash hands	Always	363	86.63	56	13.37	0.680
	Rarely	5	100.00	0	.00	
	Sometimes	66	86.84	10	13.16	
Do you think chemical disinfectant can prevent COVID-19	No	12	100.00	0	.00	0.179
	Yes	422	86.48	66	13.52%	
Do you think COVID-19 can be disinfected by natural substances like turmeric etc.,	No	6	100.00	0	.00	0.426
	Yes	428	86.64	66	13.36	
Do you think that to prevent contracting and spreading of COVID-19 avoiding unnecessary vacations, consuming outdoor food, avoiding going out of home, avoiding hand shaking hugging and kissing, avoiding public transportation, frequently washing hands will be more effective?	No	3	100.00	0	.00	0.247
	No Opinion	94	91.26	9	8.74	
	Yes	337	85.53	57	14.47	
when do you use face mask to prevent COVID-19 contracting	Always	315	87.02	47	12.98	0.460
	Only in public and crowded places	119	86.23	19	13.77	

Table 6: Various study parameters by the level of education of the study population (n=500).

		Collegiate		Higher Secondary		Middle		No Formal		Primary		P value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Avoid social distancing to prevent COVID-19 spread	Yes	120	24.00		29.60	86	17.20	90	18.00	56	11.20	Not computable
Wear mask to prevent spread of COVID-19	Yes	120	24.00	148	29.60	86	17.20	90	18.00	56	11.20	Not computable
Use hand sanitizer to prevent spread of COVID-19	No	1	6.25	0	.00	5	31.25	10	62.50	0	.00	0.000
	Yes	119	24.59	148	30.58	81	16.74	80	16.53	56	11.57	
Isolating people from infected area would prevent COVID-19 spread	No	4	80.00	0	.00	1	20.00	0	.00	0	.00	0.048
	Yes	116	23.43	148	29.90	85	17.17	90	18.18	56	11.31	
How often do you wear mask?	Always	119	24.84	143	29.85	81	16.91	80	16.70	56	11.69	0.002
	Sometimes	1	4.76	5	23.81	5	23.81	10	47.62	0	.00	
How often do you practice social distancing	Always	99	22.35	143	32.28	75	16.93	70	15.80	56	12.64	0.000
	Rarely	5	50.00	5	50.00	0	.00	0	.00	0	.00	
	Sometimes	16	34.04	0	.00	11	23.40	20	42.55	0	.00	
How often do you avoid travel to infected area	Always	76	19.64	133	34.37	70	18.09	66	17.05	42	10.85	0.000
	Rarely	7	58.33	0	.00	0	.00	5	41.67	0	.00	
	Sometimes	37	36.63	15	14.85	16	15.84	19	18.81	14	13.86	
How often do you wash hands	Always	104	24.82	133	31.74	71	16.95	70	16.71	41	9.79	0.000
	Rarely	0	.00	5	100.00	0	.00	0	.00	0	.00	
	Sometimes	16	21.05	10	13.16	15	19.74	20	26.32	15	19.74	
Do you think chemical disinfectant can prevent COVID-19	No	3	25.00	3	25.00	4	33.33	0	.00	2	16.67	0.343
	Yes	117	23.98	145	29.71	82	16.80	90	18.44	54	11.07	
Do you think COVID-19 can be disinfected by natural substances like turmeric etc.,	No	5	83.33	1	16.67	0	.00	0	.00	0	.00	0.054
	Yes	115	23.3	147	29.8	86	17.4	90	18.2	156	11.3	

Continued.

		Collegiate		Higher Secondary		Middle		No Formal		Primary		P value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Do you think that to prevent contracting and spreading of COVID-19 avoiding unnecessary vacations, consuming outdoor food, avoiding going out of home, avoiding hand shaking hugging and kissing, avoiding public transportation, frequently washing hands will be more effective?	No	0	.00	1	33.33	1	33.33	1	33.33	0	.00	0.171
	No Opinion	19	18.45	33	32.04	11	10.68	26	25.24	14	13.59	
	Yes	101	25.63	114	28.93	74	18.78	63	15.99	42	10.66	
When do you use face mask to prevent COVID-19 contracting	Always	72	19.89	128	35.36	66	18.23	56	15.47	40	11.05	0.000
	Only in public and crowded places	48	34.78	20	14.49	20	14.49	34	24.64	16	11.59	

DISCUSSION

COVID-19 has spread worldwide and more than 10 million peoples are infected with death rate of approximately 6% which is higher than predicted 4% in beginning of disease. As per the last report, 74 cases were found per 1 million people in India. To control the same, government has implemented lockdown since March 25, 2020 well before any worst condition appears. After a long period of lockdown of various commercial activities, we need to understand the extent of public awareness towards COVID-19 pandemic so that an effective framework for creating awareness among public should be implemented keeping in view the existing public communication abilities including demographics, literacy levels, language spoken as well as socio-economic and cultural backgrounds. Various communities have been assessed highly vulnerable due to scarcity of natural resources and socio-cultural anomalies.⁴

A study carried out relating the swine influenza pandemic among the 1548 adults in Saudi Arabia concluded better level of awareness that will be reflected in higher tendency of behavioral precautions and thus can limit the spread of disease. Similarly, a study to investigate the awareness level among the adult population of Italy regarding avian influenza revealed poor level of knowledge-base and greater perceived risk due to poor precautionary behaviour among individuals and recommended health educational strategies.^{5,6}

Scientific aptitude of survey participants is indicated by their answers related to structure, naming, origin, class of the virus, 48% of participants replied appropriately towards the scientific information, which indicates their ability to adopt innovative ways of various precautionary measures. Education, occupation and socio-economic conditions are found to be important in compliance of precautionary measures among study population in various studies related to H5N1 pandemics in various parts of the world. Self-organisation, communication and ability towards continuous learning. They serve as important tools for livelihood resilience, which will actually cope up with the shocks to reduce poverty, additionally will improvise upon community adaptive capacity building.⁷

Coronaviruses encompass a large family of viruses that can cause illnesses ranging from the common cold to more serious diseases such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome. The virus that cause COVID-19 disease is named 2019-nCoV virus which is a new species of coronavirus. All of the participants are aware of the virus. About 90% of participants were aware that washing hands frequently with soap and water for at least 20 s, especially before eating, after using the bathroom, and after blowing your nose, coughing, or sneezing, and using hand sanitizer with at least 60% alcohol if soap and water are not available and wearing mask could prevent spread of

COVID-19. A cross-sectional survey on adults in US shows lacked critical knowledge about COVID-19 and, despite concern, were not changing routines or plans which results in most vulnerable communities.⁸

CONCLUSION

The study pointed out some important concern about the understanding of COVID-19 pandemic among South Indians. There is a clear need for training programme with respect to locale-specific scenario targeted to a specific cluster of population explaining upon their respective lifestyle, to improve the knowledge and compliance about risk and preventions. Role of media, physician, government and non-governmental organizations and religious groups is extremely important in creating awareness about the various aspects of spread, prevention, treatment of the disease by means of interesting programmes, poems, songs, cartoons, talks, among others, to facilitate confidence of people to let them protect themselves, follow their economic activities and care COVID-19 patients.

Creating awareness by innovative ways should be adopted as one of the best practices to combat the spread of pandemic. Presentations on TV, social media in local people's friendly language, online and live competitions with continuous guidelines are required. There is a need to elaborate the Indian socio-cultural aspects so that society start appreciating and voluntarily following social distancing. This should improve the confidence of people to let them protect themselves not only from the present pandemic but also from all other unforeseen infections, provide care to patients, contribute towards country's economic build-up by maintaining livelihood resilience with continued presence and productivity at workplace. This should improve the confidence of people to let them protect themselves and care COVID-19 patients.s

Limitations

The significance of the findings of the study could have been strengthened greatly if the parameters of the study had been extended to include rural areas.

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