ATTITUDE AND PRACTICE ON SARS-COV-2 AMONG INDIAN RESIDENTS DURING COVID19 LOCKDOWN IN INDIA

– A TRANSVERSE STUDY

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ABSTRACT

Globally India holds second position after china in its population and in Corona outbreak India is fourth as on 15th June 2020 in the world. Corona virus disease 2019 (COVID-19) was declared pandemic by the World Health Organization on the 11th of March 2020. In 2019, a novel virus called corona virus has been out broken from china and it spreads all over the world. The whole world's economy, health, and all other sectors stagnated due to this novel virus. Since no drug or vaccine has been discovered to combat this disease, the only way out is social distancing and to come out of this is the implementation of proper prevention strategies. So the present study focuses on attitude and practice during COVID 19 among the general Public in India. The study was conducted with 9121 samples and the results showed that about three fourth of the respondents are having good practice and attitude during the COVID 19 pandemic situation. The study also explored the relationship between demographic variables and attitude and practice of general public in India during COVID 19 outbreak.

Keywords: Corona virus, COVID 19, Attitude, Practice and General Public

Introduction and Background of the study

The recent outbreak of respiratory illness caused by a novel corona virus (named "COVID-2019") has gained attention globally and has been recognized as a serious public health threat by US Centers for Disease Control and Prevention (CDC). As of 26 April 2020, WHO reported, 2,804,796 confirmed and 193,710 deaths globally, among which 84,900 and 6006 are confirmed death cases in 24 hours respectively. Corona viruses are an oversized family of enveloped RNA viruses found during a broad range of animals including camels, cattle, cats, and bats. Likewise, the vectors can transmit corona viruses to humans with continued circulation resulting from human-to-human exposure. Examples include severe acute respiratory syndrome corona virus (SARS-CoV), Middle East Respiratory Syndrome Corona virus (MERS-CoV), COVID-2019, like MERS-CoV, and SARS-CoV, all of them have originated in bats.[7]

COVID-19 may be a disease and most infected people will develop mild to moderate symptoms and recover without requiring special treatment. People who are having medical conditions and aged above 60 years old have a high possibility of developing severe disease and death. Initially, 2019-nCov patients were shown to own some link to large seafood and live animal market in Wuhan, China, suggesting animal-to-person transmission. However, an increasing number of cases appear to own resulted from human-to-human contact as growing numbers of patients haven't been exposed to animal markets.

The COVID-2019 is reported because the third corona virus evolving among the human population within the past twenty years, preceded by the SARS-CoV outbreak in 2002 and also the MERS-CoV outbreak in 2012. This has put global health institutions on alert. Organizations like the CDC and WHO have developed preparedness and prevention checklist of 2019-nCoV infection to be employed by public and healthcare professionals. At present, no

antiviral medication or vaccine is on the market for 2019-nCoV infection and infected patients are managed with supportive care.[2]

Figure 1. Countries, territories or areas with reported confirmed cases of COVID-19, 26 April 2020
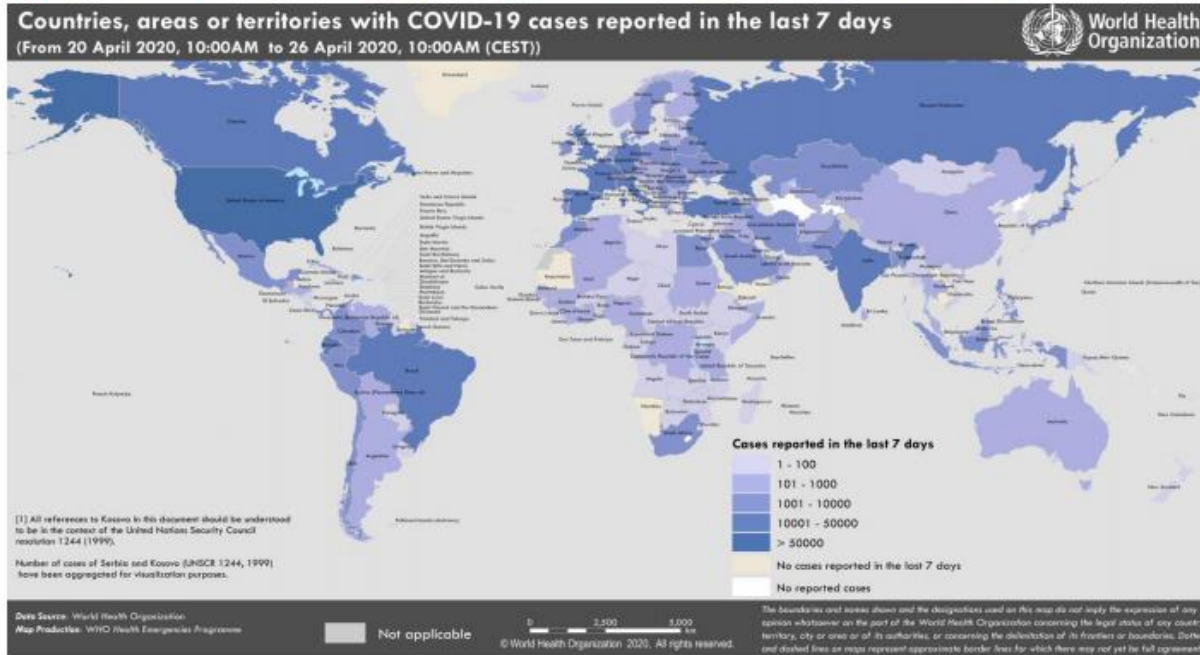
As recommended by the WHO, within each country, various Governments has taken necessary steps to narrow the spread and the further preventive measures.

Accordingly, specific locations or services might be the focal point of the outbreak. Healthcare is provided outside hospitals (such as emergency clinics, nursing homes, and isolation, quarantine, and community health centers), hospital-based professionals remain the group at extremely high risk of exposure to the infections and may acquire or transmit them accordingly. There happened to be multiple cases consequently. Though we have necessary measures taken by government at center as well as by the various state Governments, the public seems to be very exasperated due to certain proceedings. The evolving outbreak of corona virus disease 2019 (COVID-19) is requiring social distancing and other measures to protect public health. However, messaging has been inconsistent and unclear. Therefore, it has become necessary to understand the awareness, practice and preparedness in managing the 2019-nCoV infection, which is of imperative to the highest degree so as to prevent the further spread of the disease. Thus, this study will be conducted to assess the awareness, practice and preparedness of healthcare personnel against the 2019-nCoV outbreak and how well they respond in an outbreak.

Literature Review

A study by Pranav D. Modi, Girija Nair et.al(2020) amongst the Mumbai Metropolitan Region with a 1562 healthcare professionals about the" COVID-19 Awareness among Healthcare Students and Professionals in Mumbai Metropolitan Region", indicated a general awareness for all subgroups was satisfactory, with more than half of the population (71.2%) responding correct answers. Highest percentage of correct responses was from undergraduate

medical students and the lowest was from non-clinical/administrative staff in this study. Similarly, more than three fourth of the responders were aware of the control measures and application of mask/respirator.[4]

Another research on the "Dentists' awareness, perception, and attitude regarding COVID-19 and infection control: A cross-sectional study among Jordanian dentists" by Yousef Khader, Mohannad Al Nsour et.al (2020) discussed the demographic characteristics, their awareness of incubation period, the symptoms of the disease, mode of transmission of the COVID-19, and infection control measures for preventing COVID-19, and their attitude toward treating patients with COVID-19.The study revealed greater part of the respondents were aware of COVID-19 symptoms, ways to identify patients at risk of COVID-19, modes of transmission, preventive measures of COVID-19 transmission in dental clinics. Also, some of them have appeared in various lectures and webinars.[6]

Michael S. Wolf, Marina Serper et.al studied the "Awareness, Attitudes, and Actions Related to COVID-19 among Adults with Chronic Conditions at the Onset of the U.S. Outbreak: Cross-sectional Survey" studied to determine COVID-19 awareness, knowledge, attitudes, and related behaviors among U.S. adults who are more vulnerable to complications of infection because of age and co-morbid conditions. The results showed that fourth of participants were "very worried, also, a thirty part of population were not really aware about the symptoms. The study also revealed that the blacks had less knowledge on health were not even worried about COVID-19, and had great confidence with the national system.[3]

"Knowledge and practices towards COVID-19 during its outbreak: a multinational cross-sectional study "by Abdallah Y Naser, Eman Z Dahmash et.al. among 1,208 Middle Eastern participants, indicated relatively low level of knowledge about COVID-19, particularly regarding its transmission routes. The best part of the respondents had better knowledge, about disease prevention and control with COVID 19.[1]

Materials and Method

The main focus of the study is to understand the attitude and practice towards COVID 19 among the general public in India. The objectives of the study include the following:

- To understand the demographic profile of the respondents
- To know the nature of attitude and practice during COVID 19 among general public.
- To study the influence of demographic variables towards the nature of attitude and practice among general public during the COVID 19 outbreak.

The study was organized among 9121 respondents residing in different parts of India. By employing the cross sectional design, both descriptive and inferential statistics is used to analyze data. Samples were selected randomly and are used to collect data and SPSS version 20 is used for data analysis.

Results

The core of the study is to understand the attitude and practice towards COVID 19 among the general public in India. The attitude is classified as positive and negative whereas practice is classified as best, good and bad based on the score from the questionnaire.

Table 1.1 reveals the demographic details of the respondents.

Demographic Variables		Frequency	Percentage
Age	Below 20 Years	448	4.9
	21-30	7409	81.2
	31-40	528	5.8
	41-50	608	6.7
	Above 50 years	128	1.4
	Total	9121	100.0
Gender	Male	3905	42.8
	Female	5088	55.8
	Prefer not to say	128	1.4
	Total	9121	100.0
Marital Status	Married	1632	17.9
	Unmarried	7489	82.1
	Total	9121	100.0
Education Qualification	School level	416	4.6
	Under graduate	3872	42.5
	Post graduate	4385	48.1
	M.Phil	256	2.8
	Ph.D	192	2.1
	Total	9121	100.0
Occupation	Student at UG,PG & Research scholar	4977	54.6
	Self Employed	448	4.9
	Government employee	1056	11.6
	Business	128	1.4
	Private sector	2448	26.8
	Pensioner	64	.7
	Total	9121	100.0
Family Type	Nuclear family	6880	75.4
	Joint family	2241	24.6
	Total	9121	100.0
Place of residence	Urban	5264	57.7
	Rural	3857	42.3
Total		**9121**	**100**

From the table, it was clear that the study covers almost all the adult age groups and the majority (81.2 %) of the respondents was from the age group 21-30 years. More than half (55.8%) of the respondents were female and male respondents also covers almost similar level of the counterpart. Attitude and Practice during COVID 19 were more good among unmarried respondents (82.1%) compared to the married respondents (17.9%). More than half (54.6 %) of the respondents were students at UG, PG and Research Scholars and more than one fourth (26.8 %) were from private sector. Three fourth of the respondents (75.6%) belongs to nuclear family and more than half (57.7%) of the respondents were from urban area.

From the analysis, it was clear that about three fourth of the respondents (72.6) are having good practice and attitude towards COVID 19 pandemic. A very few (18.1%) are having best and a meager (9.3%) percentage of respondents are having bad practice and attitude during this crisis situation.

Table 1.2 Nature of Attitude and Practice towards COVID 19

Demographic Variables		Nature of Attitude and Practice			Total	Sig.
		Bad	Good	Best		
Age (in years)	Below 20	64	320	64	448	p<0.01 Sig
		7.5%	4.8%	3.9%	(4.9%)	
	21-30	784	5233	1392	7409	
		92.5%	79.0%	84.5%	(81.20%)	
	31-40	0	464	64	528	
		0.0%	7.0%	3.9%	(5.8%)	
	41-50	0	480	128	608	
		0.0%	7.2%	7.8%	(6.7%)	
	Above 50	0	128	0	128	
		0.0%	1.9%	0.0%	(1.4%)	
Gender	Male	528	2593	784	3905	p<0.01 Sig
		62.3%	39.1%	47.6%	(100.0)	
	Female	320	3904	864	5088	
		37.7%	58.9%	52.4%	(100.0)	
	Prefer not to say	0	128	0	128	
		0.0%	1.9%	0.0%	(100.0)	
Marital Status	Married	192	1312	128	1632	p<0.01 Sig
		22.6%	19.8%	7.8%	(100.0)	
	Unmarried	656	5313	1520	7489	
		77.4%	80.2%	92.2%	(100.0)	
Education Qualification	School level	64	0	352	416	p<0.01 Sig
		(15.4)	(0.0)	(84.6)	(100.0)	
	Under graduate	272	1616	1984	3872	
		(7.0)	(41.7)	(51.2)	(100.0)	
	Post graduate	192	1313	2880	4385	
		(4.4)	(29.9)	(65.7)	(100.0)	
	M.Phil	0	128	128	256	
		(0.0)	(50.0)	(50.0)	(100.0)	
	Ph.D	0	64	128	192	
		(0.0)	(33.3)	(66.7)	(100.0)	
Occupation	Student at	400	1649	2928	4977	p<0.01 Sig
		(8.0)	(33.1)	(58.8)	(100.0)	
	Self Employed	128	192	128	448	
		(28.6)	(42.9)	(28.6)	(100.0)	
	Government employee	0	448	608	1056	
		(0.0)	(42.4)	(57.6)	(100.0)	
	Business	0	0	128	128	
		(0.0)	(0.0)	(100.0)	(100.0)	

	Private sector	0	832	1616	2448	
		(0.0)	(34.0)	(66.0)	(100.0)	
	Pensioner	0	0	64	64	
		(0.0)	(0.0)	(100.0)	(100.0)	
Family Type	Nuclear family	400	2448	4032	6880	p<0.01 Sig
		(5.8)	(35.6)	(58.6)	(100.0)	
	Joint family	128	673	1440	2241	
		(5.7)	(30.0)	(64.3)	(100.0)	
Place of residence	Urban	400	1600	3264	5264	p>0.01 Sig
		(7.6)	(30.4)	(62.0)	(100.0)	
	Rural	128	1521	2208	3857	
		(3.3)	(39.4)	(57.2)	(100.0)	
Total		528	3121	5472	9121	
		(5.8)	(34.2)	(60.0)	(100.0)	

Majority (81.20%) of the respondents from the age group 21-30 years old have best attitude and practice during the COVID-19 outbreak. By compared to male, more than half (52.4%) of the female respondents have best attitude and practice in the pandemic situation. Vast majority (92.2%) of the respondents from unmarried group have the best practice whereas meager (7.8 %) of the married group have best practice during COVID 19 outbreak. The school level education as well as Ph.D level education has best practice and Pensioners and those who are working in private sector has best attitude and practice. Those who belongs to joint family and those belong to rural area have good practice and attitude towards COVID 19 pandemic. From the chi square analysis, it was found that there is a relationship between the independent variables such as age, gender, marital status, type of family, place of residence, occupation and educational qualification to the nature of attitude and practice during COVID 19 outbreaks.

Table 1.3 One Way ANOVA between the independent and dependant variables

Demographic Variables		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	1515.194	4	378.798	86.983	.000
	Within Groups	39699.022	9116	4.355		
	Total	41214.216	9120			
Gender	Between Groups	152.315	2	76.157	16.911	.000
	Within Groups	41061.901	9118	4.503		
	Total	41214.216	9120			
Educational qualification	Between Groups	1057.785	4	264.446	60.033	.000
	Within Groups	40156.431	9116	4.405		
	Total	41214.216	9120			
Occupation	Between Groups	1994.887	5	398.977	92.727	.000
	Within Groups	39219.329	9115	4.303		
	Total	41214.216	9120			

The below table represent the one way ANOVA between the variables age, gender, educational qualification and Occupation with scores of attitude and practice. The result showed that there is a significant difference with all the independent variables used in the study to the dependent variable.

The table 1.4 depicts the results of Independent sample t test with independent variables such as marital status, types of family and place of residents to the score of attitude and practice. The result proved that there is a significant difference in score of attitude and practice between male and female. Similarly there is a significant difference in score of attitude and practice between nuclear and joint family. But it is clearly showed that there is no significant difference in score of attitude and practice between urban and rural areas.

Table 1.4 T test between independent and dependent variables

Demographic Variables			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Marital Status	**Attitude and Practice**	Equal variances assumed	46.997	.000	-1.940	9119	.052	-.11265	.05806	-.22647	.00117
		Equal variances not assumed			-2.327	3039.311	.020	-.11265	.04842	-.20759	-.01771
Type of Family		Equal variances assumed	32.389	.000	-14.877	9119	.000	-.76008	.05109	-.86023	-.65993
		Equal variances not assumed			-13.472	3281.004	.000	-.76008	.05642	-.87070	-.64946
Place of Residents		Equal variances assumed	112.934	.000	-.266	9119	.790	-.01198	.04506	-.10030	.07635
		Equal variances not assumed			-.272	8906.241	.785	-.01198	.04399	-.09820	.07425

Discussion and Scope of the research

The study centered on the nature of practice and attitude during COVID 19 among general public in India. Around three fourth of the respondents were having good attitude and practice during the pandemic situation. This can be one of the very obvious reasons for India being a country with less rate in spread of corona virus while compared to other developed countries. As the prevention strategies works more for lessening the spread, the people in India are more conscious and law abiding to combat the pandemic. The respondents from the age group 21-30 years have good attitude and practice compared to other age groups. This can be because of their higher concern about the health and the reality of the pandemic situation. Compared to males, females are good in attitude and practice during the COVID 19 outbreak. There is a study among the students in northeast Thailand showed that health behaviors and positive health habits are better practiced among women.[5]

The respondents belongs to joint family is having positive attitude and better practice for the prevention of COVID 19. Since it is a virus which spreads through physical contact, it is very easy to spread in joint families than in nuclear families. As the number of family members' increases, the chance to spread the virus also increases. So those in joint families have to be more careful in the pandemic situation. Knowledge about the prevention measures also matters for the practice of health behavior at the time of a pandemic situation.

The study was confined only to few demographic variables as independent variables. In the present scenario, the influence of visual media and social media towards the attitude and practice of health behavior at the time of COVID 19 has to be considered. So there is a scope for further future studies which can be organized by adding more variables like influence of social media, government services and so on.

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