KNOWLEDGE, ATTITUDE AND PRACTICE ON SARS-COV-2 AMONG THE YOUNG INDIAN RESIDENTS DURING LOCKDOWN DUE TO SARS-COV-2 OUTBREAK

-A Cross Sectional Survey

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ABSTRACT

Youth is a period of transition from the dependence of childhood to adulthood's independence and awareness of our interdependence as members of a community. National Youth Policy (2014) pointed out youth as the age group of 15-29 years, which constitutes 27.5 percents of population. Young people are healthy, more than that 1.8 million young people aged 15 to 24 die each year, mostly due to preventable causes. SARS-CoV-2 is a highly infectious disease identified first in Wuhan, China in December 2019. Initiating from China, novel Corona moved towards east and then crossed to west showing its tyrannical face in each country. Almost eighty percent of the nation in this globe had been deadly affected and locked down was declared almost ninety percent of the nations by the novel corona. Human beings are striving hard to overcome the strange corona virus. The curative medicines have not produced till now the only way is to preventive measures. India has been locked down for more than a month due to the spread of corona virus.. The study aims in understanding the extent of awareness on SARS-CoV-2 among Indian youth residents of 15 to 35 years age through a cross sectional survey. A self-developed online KAP questionnaire was completed by the participants. The knowledge questionnaire consisted of 12 questions regarding the clinical characteristics and prevention of COVID-19. Assessments on residents' attitudes and practices towards COVID-19 included questions on confidence in winning the battle against COVID-19 and wearing masks when going out in recent days. The KAP was classified as three levels such as high, moderate and low level. The study covers about 8338 samples residing in India. The study shows that about the participants are moderate to high level of awareness about SARS-CoV-2. The knowledge about the spread of the corona virus has an impact on practicing the preventive measures against SARS-CoV-2.

Keywords: Youth, SARS-CoV-2, Awareness, Knowledge, Attitude and Practice

I. INTRODUCTION

Youth is the hope of tomorrow's future. UNESCO defines youth as a period of as a period of transition from the dependence of childhood to adulthood's independence and awareness of our interdependence as members of a community. National Youth Policy (2014) pointed out youth as the age group of 15-29 years, which constitutes 27.5 percents of population. One of the objectives of National youth policy is to develop a healthy generation through effective healthcare, promotion of a healthy lifestyle and sports. WHO (1948) defined health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Good health is important for young people as it sets the stage for well-being in later life. While most young people are healthy, more that 1.8 million young people aged 15 to 24 die each year, mostly due to preventable causes. Many more engage in behaviours that are dangerous not only to their current state of health, but also puts their health at risk for years to come. Promoting healthy lifestyles and taking steps to better educate and protect this group from health risks will ensure longer, more productive lives. Paul Bloem in WHO podcast said that young people, when

given the opportunity, would make the right choices to behave in ways that their health is not affected. As societies, as parents and as health workers, it is the duty of all to make sure that environment for young people should be made in such a way that they can make the best of their lives, to stay healthy and to develop and grow up into productive, young men and women.

Since the start of New Year 2020, world nations started to strive with an unknown microbe structure belonging to the corona virus family. Coronavirus disease 2019 (abbreviated "COVID-19") is an emerging respiratory disease that is caused by a novel coronavirus and was first detected in December 2019 in Wuhan, China. The disease is highly infectious, and its main clinical symptoms include fever, dry cough, fatigue, myalgia, and dyspnea. COVID-19 develops to the severe stage, which is characterized by acute respiratory distress syndrome, septic shock, difficult-to-tackle metabolic acidosis, and bleeding and coagulation dysfunction. The ongoing SARS-CoV-2 pandemic has spread very quickly, and by April 22, 2020, the virus had reached 210 countries altogether, resulting in 16,92,860 laboratory-confirmed cases (with 1635641 mild condition and 57219 serious condition) and 178558 deaths[1]. In response to this serious situation, the World Health Organization (WHO) declared it a public health emergency of international concern on January 30 and called for collaborative efforts of all countries to prevent the rapid spread of SARS-CoV-2. On April 18, 2020 WHO and Global Citizen co-hosted a global on-air special to celebrate and support frontline healthcare workers featured the real experiences from doctors, nurses and families around the world.

II. BACKGROUND AND RATIONALE OF THE STUDY

Most young people are healthy, however, more that 1.8 million young people aged 15 to 24 die each year. A much greater number of young people suffer from illnesses which hinder their ability to grow and develop to their full potential. And a still great number of young people engage in behaviours that jeopardize not only their current state of health, but often their health for years to come. It is estimated that nearly two-thirds of premature deaths and one-third of the total disease burden in adults are associated with conditions or behaviours that began in their youth, including: tobacco use, a lack of physical activity, unprotected sex or exposure to violence.

Indian youth faces the following problems predominately, which needs to address through appropriate interventions. Youth is a time of immense biologic, psychological, and social change. These rapid changes in hormonal milieu, changing ideas and concepts about the world, having to cope up with the expectations from the society and need to establish their own identity keep them in lots of pressure. The problems are

- Youth and Nutrition
- Eating Disorders- *Anorexia Nervosa, Bulimia*
- *Mental Health - depression, OCD, Suicide, substance use disorder, anxiety etc.,*
- *Problems related to misuse/inappropriate use of Technology - Mobile Use, Online Games, Dating Website, Camera Hacking, Social Trolling, Cyber bullying etc.,*
- Early Marriage and Sexual Reproductive Health related problems
- Gender Dysphoria
- Sleep Disturbances
- Sexually Transmitted Infections (STI)
- Violence etc

[1] Worldometer Coronavirus updates https://www.worldometers.info/coronavirus/

Young people are prone to a number of health impacting conditions due to personal choices, environmental influences and lifestyle changes including both communicable and non-communicable disorders and injuries. Others include substance use disorders (tobacco, alcohol and others), road traffic injuries (RTIs), suicides (completed and attempted), sexually transmitted infections (STI) including human immunodeficiency virus (HIV) infection, teen and unplanned pregnancies, homelessness, violence and several others. Each of these activities carries some degree of risk. Risk taking is considered to be characteristics of youth and experimentation and exploration are variable parts of growing up. However, youth underestimate their risk of disease, accident and vulnerability and they often lack knowledge about the consequences of their actions thereby exposing themselves to serious problems. In all countries, whether developing, transitional or developed, disabilities and acute and chronic illnesses are often induced or compounded by economic hardship, unemployment, sanctions, restrictions, poverty or poorly distributed wealth at both individual and country level.

Corona viruses were first discovered in the 1930s when an acute respiratory infection of domesticated chickens was shown to be caused by infectious bronchitis virus. Arthur Schalk and MC Hawn described in 1931 a new respiratory infection of chickens in North Dakota. The infection of new-born chicks was characterized by gasping and listlessness. The mortality rate of the chicks was 40–90%. In the 1940s, two more animal corona viruses, mouse hepatitis virus (MHV) and transmissible gastroenteritis virus (TGEV), were isolated. It was not realized at the time that these three different viruses were related.

Human corona viruses were discovered in the 1960s. The earliest ones studied were from human patients with the common cold, which were later named human coronavirus 229E and human corona virus OC43. They were first imaged by Scottish virologist June Almeida at St. Thomas Hospital in London. Other human corona viruses have since been identified, including SARS-CoV in 2003, HCoV NL63 in 2004, HKU1 in 2005, MERS-CoV in 2012, and SARS-CoV-2 in 2019. Most of these have involved serious respiratory tract infections.

Corona viruses are large pleomorphic spherical particles with bulbous surface projections. The average diameter of the virus particles is around 120 nm (.12 μm). The diameter of the envelope is ~80 nm (.08 μm) and the spikes are ~20 nm (.02 μm) long. The envelope of the virus in electron micrographs appears as a distinct pair of electron dense shells. Corona viruses contain a positive-sense, single-stranded RNA genome. The genome size for corona viruses ranges from 26.4 to 31.7 kilobases. The genome size is one of the largest among RNA viruses. The genome has a 5′ methylated cap and a 3′ polyadenylated tail.

In December 2019, a pneumonia outbreak was reported in Wuhan, China. On 31 December 2019, the outbreak was traced to a novel strain of corona virus, which was given the interim name 2019-nCoV by the World Health Organization (WHO), later renamed SARS-CoV-2 by the International Committee on Taxonomy of Viruses. The Wuhan strain has been identified as a new strain of Betacoronavirus from group 2B with approximately 70% genetic similarity to the SARS-CoV. The virus has a 96% similarity to a bat corona virus, so it is widely suspected to originate from bats as well. The pandemic has resulted in travel restrictions and nationwide lockdowns in several countries.

The most common symptoms of COVID-19 are fever, tiredness, and dry cough. Some patients may have aches and pains, nasal congestion, runny nose, sore throat or diarrhea. These symptoms are usually mild and begin

gradually. Some people become infected but don't develop any symptoms and don't feel unwell. Most people (about 80%) recover from the disease without needing special treatment. Around 1 out of every 6 people who gets COVID-19 becomes seriously ill and develops difficulty breathing. Older people, and those with underlying medical problems like high blood pressure, heart problems or diabetes, are more likely to develop serious illness. People with fever, cough and difficulty breathing should seek medical attention.

The disease can spread from person to person through small droplets from the nose or mouth which are spread when a person with SARS-CoV-2 coughs or exhales. These droplets land on objects and surfaces around the person. People can also catch SARS-CoV-2 if they breathe in droplets from a person with SARS-CoV-2 who coughs out or exhales droplets.

The main way the disease spreads is through respiratory droplets expelled by someone who is coughing. The risk of catching SARS-CoV-2 from the feces of an infected person appears to be low. Because this is a risk, however, it is another reason to clean hands regularly, after using the bathroom and before eating.

Protection Measures

• Regularly and thoroughly clean your hands with an alcohol based hand rub or wash them with soap and water. Washing your hands with soap and water or using alcohol-based hand rub kills viruses that may be on your hands.

• Maintain at least 1 metre (3 feet) distance between yourself and anyone who is coughing or sneezing. When someone coughs or sneezes they spray small liquid droplets from their nose or mouth which may contain virus.

• Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth.

• Stay home if you feel unwell. If you have a fever, cough and difficulty breathing, seek medical attention and call in advance. Follow the directions of your local health authority.

Illness due to COVID-19 infection is generally mild, especially for children and young adults. However, it can cause serious illness: about 1 in every 5 people who catch it need hospital care. It is therefore quite normal for people to worry about how the COVID-19 outbreak will affect them and their loved ones. We can channel our concerns into actions to protect ourselves, our loved ones and our communities. First and foremost among these actions is regular and thorough hand-washing and good respiratory hygiene. Secondly, keep informed and follow the advice of the local health authorities including any restrictions put in place on travel, movement and gatherings.

1. Remember, a mask should only be used by health workers, care takers, and individuals with respiratory symptoms, such as fever and cough.
2. Before touching the mask, clean hands with an alcohol-based hand rub or soap and water
3. Take the mask and inspect it for tears or holes.
4. Orient which side is the top side (where the metal strip is).
5. Ensure the proper side of the mask faces outwards (the coloured side).

6. Place the mask to your face. Pinch the metal strip or stiff edge of the mask so it moulds to the shape of your nose.
7. Pull down the mask's bottom so it covers your mouth and your chin.
8. After use, take off the mask; remove the elastic loops from behind the ears while keeping the mask away from your face and clothes, to avoid touching potentially contaminated surfaces of the mask.
9. Discard the mask in a closed bin immediately after use.
10. Perform hand hygiene after touching or discarding the mask – Use alcohol-based hand rub or, if visibly soiled, wash your hands with soap and water.

Incubation Period

The "incubation period" means the time between catching the virus and beginning to have symptoms of the disease. Most estimates of the incubation period for COVID-19 range from 1-14 days, most commonly around five days. These estimates will be updated as more data become available.

Bao-Liang Zhong (2020) et al study on Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey presented the importance of awareness about the new epidemic outbreak in managing the public health effectively. The study picturizes the extent of knowledge among the Chinese residents.

Tanja Nancy's (2020) study on Conservative management of Covid-19 patients – emergency palliative care in action describes the patient infected with SARS-CoV-2. The study categorized the patients based on their condition and reflected it with assessment and treatment for patients admitted in palliative care in Switzerland.

Timothy Abuya et al (2020) study on COVID-19-related knowledge, attitudes, and practices in urban slums in Nairobi, Kenya. The survey includes 2009 samples collected through phone interviews. The study aims in understanding the extent of knowledge in the sub Saharan areas during the initial stage of pandemic outbreak. Based on the survey, the Kenyan Ministry of Health's taskforce intervened with prevention and mitigation measures.

Jianbo Lai et al (2020) Factors Associated With Mental Health Outcomes Among Health Care Workers exposed to Corona Virus 2019 is a cross-sectional, survey-based, region-stratified study collected demographic data and mental health measurements from 1257 health care workers in 34 hospitals from January 29, 2020, to February 3, 2020, in China. The study report shows that a considerable health care workers reported experiencing symptoms of depression, anxiety, insomnia, and distress, especially women, nurses, those inWuhan, and front-line health care workers directly engaged in diagnosing, treating, or providing nursing care to patients with suspected or confirmed COVID-19.

III. MATERIALS AND METHODS

The study aims in understanding the extent Knowledge, Attitude and Practice (KAP) on the pandemic outbreak SARS-CoV-2 among the Indian Youth. The study also analyses the correlation between the knowledge and the practice measures undertaken by the residents. The study involves cross-sectional design and quantitative method among 8338 residents in India. The data collected through self developed questionnaire covering items related to knowledge, attitude and practice toward SARS-CoV-2. According to guidelines for clinical and community

management of COVID-19 by the National Health Commission of the People's Republic of China a COVID-19 knowledge questionnaire was developed by the authors. The questionnaire had 12 questions, 4 regarding clinical presentations (K1-K4), 3 regarding transmission routes (K5-K7), and 5 regarding prevention and control (K8-K12) of COVID-19. These questions were answered on a true/false basis with an additional "I don't know" option. A correct answer was assigned 1 point and an incorrect/unknown answer was assigned 0 points.

The total knowledge score ranged from 0 to 12, with a higher score denoting a better knowledge of COVID-19. The Cronbach's alpha coefficient of the knowledge questionnaire was 0.73 in our sample, indicating acceptable internal consistency. Attitudes towards COVID-19 were measured by 3 questions about the agreement on the final control of COVID-19 and the confidence in winning the battle against COVID-19. The assessment of respondents' practices was composed of 4 behaviors going to a crowded place and wearing a mask when going out in recent days.The data had been analyzed using SPSS (version 20). The higher analysis includes independent sample t test, one way ANOVA and correlation.

The study focuses on the extent of knowledge among the residents in India during the pandemic SARS-CoV-2 outbreak. The extent of knowledge had been categorised as general awareness on SARS-CoV-2, awareness on clinical presentation, awareness on transmission routes and awareness on prevention and control with respect to SARS-CoV-2.

Table 1 shows the Knowledge, Attitude and Practice on SARS-CoV-2 among the Indian Youth residents Demographic Characteristics**.** The awareness on SARS-CoV-2 outbreak in India has been compared with that of independent variables. Demographic variables such as age, gender, marital status, educational qualification, occupation, family type and place of residence had been selected as independent variables. There exist significant difference between the age, gender, occupation, marital status, family type and educational qualification respectively and awareness on SARS-CoV-2 outbreak at 0.01 significant level. Youth age is classified as 15 to 35 years according to Indian National Policy on Youth, 2014 and found that predominantly higher the age higher the knowledge, attitude and practice as shown in the Table No.1

Table No. 1 Knowledge, Attitude and Practice among Demographic Characteristics of Indian Youth

Demographic Characteristics		Knowledge, Attitude & Practice						
		Low	Moderate	High	Mean	Std. Deviation	t/F	P
Age	Below 24 years	284	3326	978	15.3448	3.94646	9.663	<0.001
		3.4%	39.9%	11.7%				
	25-30 years	153	1386	390	14.8813	4.40246		
		1.8%	16.6%	4.7%				
	31 -35 years	84	1400	337	15.4305	3.46239		
		1.0%	16.8%	4.0%				
Gender	Male	393	2239	704	14.6106	5.13959	98.607	<0.001
		4.7%	26.9%	8.4%				
	Female	128	3745	1001	15.6787	2.88513		
		1.5%	44.9%	12.0%				
	Prefer not to say	0	128	0	16.0000	0.00000		
		0.0%	1.5%	0.0%				
Marital Status	Married	157	1900	348	14.7971	3.75414	35.101	<0.001
		1.9%	22.8%	4.2%				
	Unmarried	364	4212	1357	15.4424	4.03114		
		4.4%	50.5%	16.3%				
Education Qualification	School level	57	0	0	1.0000	0.00000	98.459	<0.001
		.7%	0.0%	0.0%				
	Under graduate	272	2934	633	14.7726	4.43981		
		3.3%	35.2%	7.6%				
	Post graduate	192	2858	1072	15.9083	3.15111		
		2.3%	34.3%	12.9%				
	M.Phil	0	128	0	14.5000	.50196		
		0.0%	1.5%	0.0%				
	Ph.D	0	192	0	15.6667	.47264		
		0.0%	2.3%	0.0%				
Occupation	Student & Research scholar	393	3680	857	15.1381	3.98259	90.369	<0.001
		4.7%	44.1%	10.3%				
	Self Employed	128	320	0	10.8571	5.77406		
		1.5%	3.8%	0.0%				
	Government employee	0	320	192	15.5000	2.74129		
		0.0%	3.8%	2.3%				
	Business	0	128	0	14.5000	1.50589		
		0.0%	1.5%	0.0%				
	Private sector	0	1664	656	16.3448	3.09321		
		0.0%	20.0%	7.9%				
Family Type	Nuclear family	393	5014	1120	15.0817	3.63095		
		4.7%	60.1%	13.4%				
	Joint family	128	1098	585	15.8857	4.93244		
		1.5%	13.2%	7.0%			148.924	<0.001
Place of residence	Urban	400	3382	1193	15.1461	4.28054		
		4.8%	40.6%	14.3%			126.903	<0.001
	Rural	121	2730	512	15.4193	3.43638		
		1.5%	32.7%	6.1%				

To understand the factors associated with the demographic variables such as age, gender, marital status, education, occupation, family type and place of residence were done with the knowledge, attitude and practice at 0.01 significant level. The results are as follows,

Table No. 2. Results of multiple linear regression on factors associated with Youth demographics about COVID-19 Knowledge, Attitude and Practice

Variables	Coefficients	Std. Error	T	p
Age	0.114	.055	2.067	<0.001
Gender	1.078	.085	12.739	<0.001
Marital Status	1.202	.100	11.988	<0.001
Education Qualification	1.135	.067	16.927	<0.001
Occupation	0.433	.024	18.091	<0.001
Family Type	1.225	.104	11.827	<0.001
Place of residence	0.320	.087	3.672	<0.001

The demographic variables were correlated with the level of Knowledge, attitude and practice of Indian Youth and found that age has negatively correlated with gender, marital status, place of residence and KAP level, Gender and marital status has positively correlated with place of residence and KAP Level, Education is age, gender and KAP level. The KAP level has positively correlated with all the demographic variables except the age.

Table No. 3 Correlation with demographic variables with level of Knowledge, Attitude and Practice of Indian Youth

Correlations									
		Age	Gender	Marital Status	Education	Occupation	Family Type	Place	KAP Level
Age	Pearson Correlation	1	-.042**	-.385**	.102**	.041**	.060**	-.063**	-.014
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.192
	N	8338	8338	8338	8338	8338	8338	8338	8338
Gender	Pearson Correlation	-.042**	1	-.025*	.189**	-.076**	-.226**	.088**	.067**
	Sig. (2-tailed)	.000		.024	.000	.000	.000	.000	.000
	N	8338	8338	8338	8338	8338	8338	8338	8338
Marital Status	Pearson Correlation	-.385**	-.025*	1	-.100**	-.143**	-.056**	.054**	.080**
	Sig. (2-tailed)	.000	.024		.000	.000	.000	.000	.000
	N	8338	8338	8338	8338	8338	8338	8338	8338
Education Qualification	Pearson Correlation	.102**	.189**	-.100**	1	-.128**	-.039**	-.198**	.089**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	8338	8338	8338	8338	8338	8338	8338	8338
Occupation	Pearson Correlation	.041**	-.076**	-.143**	-.128**	1	-.008	.016	.178**
	Sig. (2-tailed)	.000	.000	.000	.000		.445	.140	.000
	N	8338	8338	8338	8338	8338	8338	8338	8338
Family Type	Pearson Correlation	.060**	-.226**	-.056**	-.039**	-.008	1	.076**	.117**
	Sig. (2-tailed)	.000	.000	.000	.000	.445		.000	.000
	N	8338	8338	8338	8338	8338	8338	8338	8338
Place of residence	Pearson Correlation	-.063**	.088**	.054**	-.198**	.016	.076**	1	-.043**
	Sig. (2-tailed)	.000	.000	.000	.000	.140	.000		.000

	N	8338	8338	8338	8338	8338	8338	8338	8338
KAP Level	Pearson Correlation	-.014	.067**	.080**	.089**	.178**	.117**	-.043**	1
	Sig. (2-tailed)	.192	.000	.000	.000	.000	.000	.000	
	N	8338	8338	8338	8338	8338	8338	8338	8338
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

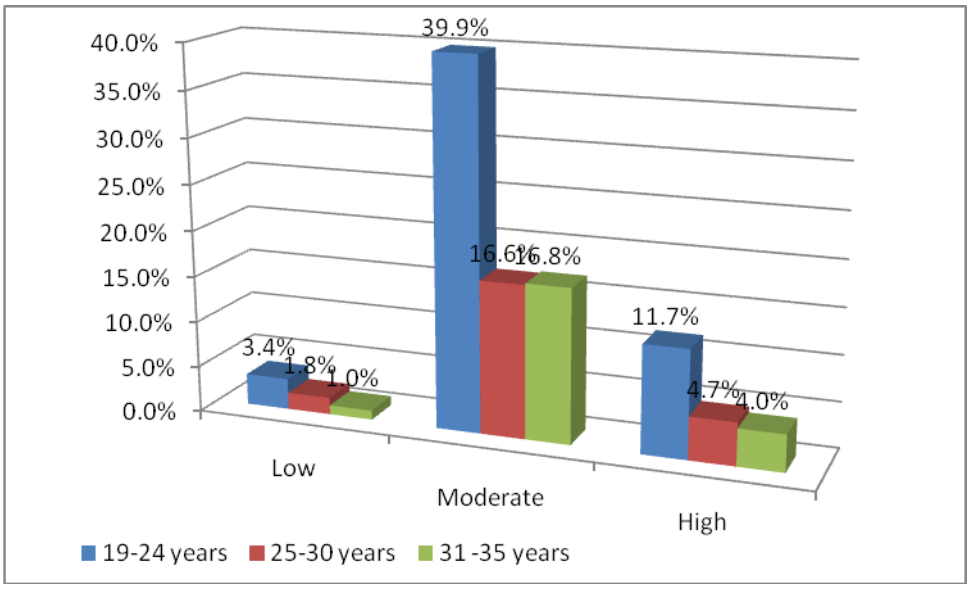

Figure No.1 Age wise distribution of Level of Knowledge, Attitude and Practice on SARS-CoV-2.

Practicing preventive measures against the SARS-CoV-2 is an high time for the Indian population, it is found that , moderate level of preventive measures were taken by the respondents by age, gender, marital status, education, occupation, place of residence and family type significant association with the preventive practice measures for SARS-CoV-2.

Table 4 Practicing Prevention Measures against COVID 19

Demographic variables		Practicing Prevention Measures			Total	Sig
		Less	Moderate	High		
Age	Below 24 years	284	3326	978	4588	p<0.01 Sig.
		(3.4)	(39.9)	(11.7)	(55)	
	25-30 years	153	1386	390	1929	
		(1.8)	(16.6)	(4.7)	(23.1)	
	31 -35 years	84	1400	337	1821	
		(1.0)	(16.8)	(4.0)	(21.8)	
Gender	Male	1664	2049	192	3905	p<0.01 Sig.
		(42.6)	(52.5)	(4.9)	(100.0)	
	Female	2352	2528	208	5088	
		(46.2)	(49.7)	(4.1)	(100.0)	
	Prefer not to say	128	0	0	128	
		(100.0)	(0.0)	(0.0)	(100.0)	
Marital Status	Married	768	864	0	1632	p<0.01 Sig.
		(47.1)	(52.9)	(0.0)	(100.0)	
	Unmarried	3376	3713	400	7489	
		(45.1)	(49.6)	(5.3)	(100.0)	
Education Qualification	School level	64	352	0	416	p<0.01 Sig.
		(15.4)	(84.6)	(0.0)	(100.0)	
	Under graduate	1872	1872	128	3872	
		(48.3)	(48.3)	(3.3)	(100.0)	
	Post graduate	1888	2225	272	4385	
		(43.1)	(50.7)	(6.2)	(100.0)	
	M.Phil	192	64	0	256	
		(75.0)	(25.0)	(0.0)	(100.0)	
	Ph.D	128	64	0	192	
		(66.7)	(33.3)	(0.0)	(100.0)	
Occupation	Student	2288	2417	272	4977	p<0.01 Sig.
		(46.0)	(48.6)	(5.5)	(100.0)	
	Self Employed	192	256	0	448	
		(42.9)	(57.1)	(0.0)	(100.0)	
	Government employee	256	800	0	1056	
		(24.2)	(75.8)	(0.0)	(100.0)	
	Business	128	0	0	128	
		(100.0)	(0.0)	(0.0)	(100.0)	
	Private sector	1280	1040	128	2448	
		(52.3)	(42.5)	(5.2)	(100.0)	
	Pensioner	0	64	0	64	
		(0.0)	(100.0)	(0.0)	(100.0)	
Family Type	Nuclear family	3456	3232	192	6880	p<0.01 Sig.
		(50.2)	(47.0)	(2.8)	(100.0)	
	Joint family	688	1345	208	2241	
		(30.7)	(60.0)	(9.3)	(100.0)	
Place of residence	Urban	2272	2784	208	5264	p<0.01 Sig.
		(43.2)	(52.9)	(4.0)	(100.0)	
	Rural	1872	1793	192	3857	
		(48.5)	(46.5)	(5.0)	(100.0)	
Total		4144	4577	400	9121	
		(45.4)	(50.2)	(4.4)	(100.0)	

IV. Discussion, Recommendation and Conclusion

The study focuses on the Awareness on SARS-CoV-2 outbreak in India covering around 8338 young people residing in India. In this study predominantly residents ranging from higher the age in years are more aware than that of others. Similarly, residents owning a business showed high level of awareness on SARS-CoV-2 than that of others. This can be correlated with the impact of economy due to the locked down of country.

The study also depicts that though residents are not much aware of clinical presentation and transmission routes of SARS-CoV-2 they were highly aware of all the prevention and control measures irrespective of differences. At the same time, the level of prevention practice is very lower (4.4%). This shows there exists a wider gap between the knowledge regarding prevention measures and practice. Most of the studies highlight the importance of awareness in breaking the spread of outbreak, in reality; there exist high awareness among the residents along with high levity on SARS-CoV-2 outbreak. The contempt towards prevention and control practice leads to the lower level of practice. Urgent interventions to bridge this gap are a need of hour to tackle the pandemic SARS-CoV-2 outbreak. The announcement of country lock down all over India, the migration of the residents for unnecessary activities shows the levity towards the SARS-CoV-2 outbreak. The reasons behind the levity are to be addressed and intervened properly so that the spread of SARS-CoV-2 can be controlled more effectively.

V. CONCLUSION

SARS-CoV-2 is an emerging pathogen, without any effective drug available for treatment at the moment. It spreads quickly and can result in death of the infected patients. Despite the current mortality rate is 2.3%, the emergence of large number of infected patients within short period of time could result in the collapse of health care system, and thus the mortality rate might be elevated. Effective preventive measures must be implemented to control it from global spreading. In addition, great effort should be made on the development of vaccine and antiviral drugs. Meanwhile, the intermediate host and the molecular mechanism of its cross-species spread should be further investigated. Indian youth needs to be empowered to understand the problems of SARS-CoV-2 and its practice. If the people are not willing to take preventive measures, it will have very drastic effect in the world second population country India. Owing to the Indian population and climatic condition, it is going to be winter from July to December which is also a foremost constraint about the spread of the deadly virus. Legislation should be employed to prohibit the potential intermediate host(s) of various viruses, to prevent the outbreak of this and other novel viruses in future.

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VIII. CONFLICT OF INTEREST/COMPETING INTERESTS

The authors have declared that no conflict of Interest/competing interest exists.

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