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Study on Knowledge & Awareness of COVID-19 among Undergraduates of G.S.V.M Medical College Kanpur

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Abstract
Background: *COVID-19 is an abbreviation for Coronavirus disease 2019 since its first detection in China it has now spread all over the world, with reports of local transmission happening in more than 200 countries. A series of measures have been suggested to reduce COVID-19 infection, including knowledge & awareness for prevention and control.*
Objective: *To assess the knowledge & awareness regarding COVID-19 among undergraduates.*
Methodology: *A Crossectional study was conducted among the undergraduate of GSVM Medical College Kanpur from 1st November 2020 to 15th December 2020. A total of 182 undergraduate students who consented to the study were included.*
Results: *The majority 99.4% knew about the COVID-19 pandemic, 81.3% of participants uses Aarogya Setu applications for online tracking awareness, 96.7% wash their hand regularly and 90.1% of participants wear a mask to avoid transmission.*
Conclusions: *Our study showed that the undergraduates had good knowledge, awareness, and sensible prevention measures regarding COVID-19 infection.*
Keywords: *knowledge, awareness, COVID-19.*

Introduction

In late December 2019, an investigation of a cluster of pneumonia cases of unknown origin in Wuhan, China resulted in the identification of a novel coronavirus. The virus is distinct from both severe acute respiratory syndrome (SARS) coronavirus and Middle East Respiratory Syndrome (MERS) coronavirus, although closely related. The disease since its first detection in China has now spread to over 200 countries/territories. COVID-19 was declared a Pandemic by WH0 on 11th March 2020 resulting in the shift of focus from China to Europe and North America and later on to the world. As such WHO advised countries to take a whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent disease, save lives and minimize the effect. Countries closed their borders against travel-related activities (by air, road, railway, or sea), and a lockdown was imposed to minimize the public movements. In India, the first case of COVID-19 was reported on 30h January 2020 in Kerala. India currently has the number largest of confirmed cases in Asia. The per-day cases peaked in mid-September 2020 with about 90,000 reported cases. In India, the outbreak of the disease was declared an epidemic, and Epidemic

Disease Act, 1897 was invoked leading to the temporary closure of educational, religious, entertainment, and commercial establishments. On 25th March 2020, the Govt. of India declared a country-wide lockdown till 3lst March, which was extended up to 14th April 2020. This lockdown was further extended to 3rd May, then up to 17th May 2020. This covers 4 phases of lockdown in the country. It was followed by gradual un-lockdown in the country, spread in 6 phases (one month each) up to 30th November 2020. It is estimated that 1.5 billion students were confined at home worldwide due to the closure of schools and universities, thus making education uncertain at all levels. A series of measures have been suggested to reduce COVID-19 infection, including knowledge & awareness for prevention and control. We conducted this study intending to assess the knowledge & awareness regarding COVID-19 among undergraduates.

Materials and Methods

A crossectional study was conducted among the M.B.B.S Final Professional part-1 undergraduates of GSVM Medical College Kanpur from 1st November 2020 to 15thDecember 2020. A total of 182 undergraduates students who consented to the study were included. 104 boys and 78girls students participated in the study, each student was explained about the study objectives and implications. A predesigned and pretested questionnaire was used to record the information containing relevant questions for achieving the objective of the study. A total set of 20 questions were made mandatory to eliminate the chances of any incomplete responses. Necessary settings limited the number of responses to one per participant which prevented the submission of multiple response forms by a single participant. Data was collected by sharing a questionnaire google form through an online WhatsApp media link among the undergraduates. Data was compiled & tabulated on google sheet and appropriate statistical tools were applied to analyze the data and results were drawn.

Results

The cross-sectional study was conducted to ascertain the knowledge and awareness among the 182 study participants. In Table 1 knowledge regarding COVID-19 is described among the participants. The majority 99.4% knew about the COVID-19 pandemic, 72.5% knew all ways of transmission and 56.5% knew about the incubation period. Table 2 shows awareness regarding COVID-19, a total of 48.3% of participants responded that television was the main source of awareness, 58.2% & 51.6% responded to the government's initiatives and contact authorities respectively. A total of 64% of respondents followed COVID-19 lockdown advisories rules. 81.3% of participants use Aarogya Setu applications for online tracking awareness whereas 69.7% answered for RT-PCR as a confirmatory test for COVID-19. Table 3 reports the awareness of preventive measures, 96.7% wash their hand regularly and 90.1% of participants wear a mask to avoid transmission whereas 93.4% respondents for proper steps of hand washing. Table 4 shows the comparison of awareness for preventive measures toward the COVID-19 among boys and girls, 97.4% & 89.7% girls whereas 96.1% & 90.3% boys students reported for hand washing and wearing mask respectively as preventive measures towards COVID- 19. 30.7% of girls and 17.3% of boys students visited shopping malls or markets frequently. The study finds a statistically significant correlation between boys and girls *p*-value = .0329 for visiting a shopping mall or markets frequently.

Table 1: Knowledge of Study Subjects Regarding COVID-19 n (182)

	Type of response	Frequency	%
Known about COVID- 19 pandemic			
	Yes	181	99.4
	No	1	0.5
The first case of COVID-19 reported in India			
	Kerala	139	76.3
	New Delhi	23	12.6
	Mumbai	18	9.8
	Ahmedabad	2	1.0
Coronavirus transmitted through			
	Air droplets or aerosols	27	14.8
	Touching a contaminated surface	12	6.5
	< 2m distance	11	6.0
	All of the above	132	72.5
The incubation period of COVID -19			
	1-14 days	103	56.5
	> 14 days	68	37.3
	7-9 days	11	6.0
Treatment for the person suffering from COVID-19 infection			
	No treatment	76	41.7
	Home isolation	72	39.5
	Antibiotic drugs	34	18.6
All infected COVID-19 contact develops symptoms & sign			
	Yes	107	58.7
	No	75	41.2
Clinical manifestations of COVID-19			
	Fever	12	6.5
	Cough	16	8.7
	Myalgia	18	9.8
	Shortness of breath	11	6.0
	All of the above	125	68.6

Table 2: Awareness of Study Subjects Regarding COVID-19 n (182)

	Type of response	Frequency	%
Sources of awareness regarding COVID-19			
	Newspaper	32	17.5
	Television	88	48.3
	Radio/FM	12	6.5
	Social media	50	27.4
Aware of the government's initiatives to prevent COVID-19			
	Yes	106	58.2
	No	76	41.7
Contact authorities for suspect/confirm cases			
	Yes	94	51.6
	No	88	48.3
Government helpline no. For COVID -19			
	Yes	96	52.7
	No	86	47.2
Lockdown advisories rules			
	Yes	118	64.8
	No	64	35.1
Better for COVID-19 infection suspects			
	Home quarantine	76	41.2
	Administrative quarantine	42	23.0
	Isolation	64	35.1
Use of COVID-19 online tracking applications for awareness			
	WORLDOMETER	13	7.1
	COVID19INDIA	21	11.5
	Aarogya Setu	148	81.3
Confirmatory test for COVID-19			
	Rapid antigen test	13	7.1
	TNAAT	42	23.0
	RT-PCR	127	69.7

Table 3: Awareness for Preventive Measures of Study Subjects toward COVID-19 n (182)

	Type of response	Frequency	%
Wash your hands with soap and water regularly			
	Yes	176	96.7
	Sometimes	06	3.29
Proper steps of handwashing correctly			
	Yes	170	93.4
	Sometimes	12	6.59
Wearing a mask to avoid transmission			
	Yes	164	90.1
	Sometimes	18	9.89
Visiting shopping mall & markets frequently			
	Yes	42	23.0
	No	140	76.9
Attended party or public gathering			
	Yes	34	18.6
	No	148	81.3

Table 4: Comparison of Awareness For Preventive Measures toward the COVID-19 Among Boys and Girls

	Type of response	Boys students n 104 (%)	Girls students n 78 (%)	*p-value*
Wash your hands with soap and water regularly				
	Yes	100 (96.1)	76 (97.4)	*0.229*
	Sometimes	04 (3.84)	02 (2.56)	
Proper steps of handwashing correctly				
	Yes	95 (91.3)	75 (96.1)	*1.672*
	Sometimes	09 (8.65)	03 (3.84)	
Wearing a mask to avoid transmission				
	Yes	94 (90.3)	70 (89.7)	*0.020*
	Sometimes	10 (9.61)	08 (10.2)	
Visiting shopping mall or markets frequently				
	Yes	18 (17.3)	24 (30.7)	***.0329****
	No	86 (82.6)	54 (69.2)	
Attended party or public gathering				
	Yes	22 (21.1)	12 (15.3)	0.*1973*
	No	82 (78.8)	66 (84.6)	

*Significant ($p \leq 0.05$) on applying chi-square test.

Discussion

In the present study, 99.4%of the participants knew about COVID-19 and this result is similar to a study conducted in Mangalore where 98.2% of the respondents knew about the disease. The source of awareness reached participants mostly through television 48.3% followed by social media 27.4%. All the modes of transmission and clinical manifestation are being explained on every platform, and this was reflected in our study where 72.5% knew about all modes of transmission & 68.6% about clinical manifestation this is similar to findings by the study done in China. 56.5% of participants responded correctly about the incubation period similar to the study at Mizan Tepi University. In our study, 76.3% of the respondents knew about the first case of COVID-19 reported in India.

In the present study, 58.2% of participants were aware of the government's initiatives to prevent COVID-19 while 52.7% about the government helpline. The majority 81.3% participants used

AAROGYA SETU applications for online awareness information for COVID-19 in other studies conducted in Jammu & Kashmir 26.7% respondents for WORLDOMETER, while 64.8% had proper awareness about lockdown advisories rules and 69.7% about the confirmatory test. Nearly 52.7% of participants respondent correctly to the government helpline for COVID-19 similar to a study conducted in Jammu & Kashmir where 51.8% were aware of helpline no. Around 58.7% of the respondents knew that all infected COVID-19 suspects develop symptoms & signs, much like a study conducted in Bangladesh. 41.7% agreed that there was no treatment, and 37.3% knew about the incubation period as more than 14 days and his results are similar to a study in the USA where participants knew about 39.8% and 34.8%, respectively. The steps that one would take in case of COVID-19 infection suspects included the following: 41.2% staying on home quarantine, 35.1% opting for isolation; and 23.0% preferring for administrative quarantine.

In our study, 96.7% and 90.1% respondents had looked for washing hands regularly and wearing the mask, whereas only 18.6% for attending the party or public gathering as awareness for prevention towards COVID-19. In the present study, 90.3% of boys and almost similar 89.7% of girls responded for wearing a mask to avoid transmission followed by 97.4% girls &96.1% boys for proper hand washing.

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