



## KNOWLEDGE, ATTITUDE AND PREVENTIVE BEHAVIOURS REGARDING COVID-19 INFECTION AMONG MEDICAL STUDENTS OF TERTIARY CARE HOSPITAL, MUMBAI.

**Dr. Rahul Eknath Sabale\***

Junior Resident, TNMC and BYL Nair hospital, Mumbai, India\*Corresponding Author

**Dr. Mangala Bote**

Associate Professor, TNMC and BYL Nair hospital, Mumbai, India

### ABSTRACT

**Background:** It is important for medical students to know about COVID-19 in order for them to be a well-versed future health workers. This study is aimed to assess the knowledge, attitude, and practice regarding COVID-19 infection among medical students at tertiary care hospital in Mumbai. **Objectives:** 1) To study the knowledge and attitude regarding COVID-19 infection among medical students. 2) To study the practice (appropriate behaviours) followed by medical students regarding COVID-19. 3) To find the association between KAP levels & demographic variables. **Material and methods:** An Observational descriptive study with cross sectional design was conducted on Under Graduate medical students of a tertiary care hospital. All the 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> year UG medical students who are willing to participate in the study during July 2021 were included in the study. Stratified sampling method is used. Data was collected through a predesigned pre structured questionnaire through google forms. 1<sup>st</sup> response of 120, 120, 120 students from 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> yr respectively has been collected.

### KEYWORDS :

#### INTRODUCTION:

Coronavirus disease 2019 (COVID-19) is an acute respiratory disease caused by a coronavirus and was first case detected in December 2019 in Wuhan, China. (1) Since then, it has rapidly spread to more than 200 countries and has been declared a global pandemic by the WHO. There are more than 17.1 million positive COVID-19 cases recorded with 668,910 deaths globally. (2)(3) The clinical features of COVID-19 vary from asymptomatic state to acute respiratory distress syndrome and multiorgan dysfunction. The common clinical features were found to be fever, cough, sore throat, headache, fatigue, headache, and breathlessness. By the end of the 1<sup>st</sup> week, the disease may progress to pneumonia, respiratory failure, and death. Common complications which require intensive care admissions include acute lung injury, acute respiratory distress syndrome, shock, and acute kidney injury. (4)(5) Incubation period is 1-14 days, with a median time of 3-7 days and the disease is found to be contagious during the latency period as per based on epidemiological investigation. It is highly transmissible in humans. (6) It is important for medical students to know about COVID-19 in order for them to be a well-versed future health professional. This study is aimed to assess the knowledge, attitude, and practice regarding COVID-19 infection among medical students at tertiary care hospital in Mumbai.

**Table no.1 Association b/w adequate attitude & practice with adequate Knowledge**

Knowledge level			P-value
	Adequate	Inadequate	
Attitude level			
Adequate	290 (95.3%)	14 (4.6%)	0.423
Inadequate	52 (92.8%)	4 (7.1%)	
Practice level			
Adequate	320 (96.3%)	12 (36.1%)	0.001*
Inadequate	20 (71.4%)	08 (28.5%)	

**Table no.2 Comparison of knowledge, attitude & practice scores among demographic variables.**

Variables	Knowledge scores		Attitude scores		Practice scores	
	Mean	SD	Mean	SD	Mean	SD
Gender						
Male	7.85 ± 1.23	t=3.28 p=0.001*	7.36 ± 1.10	t=1.02 p=0.30	7.95 ± 2.02	t=1.68 p=0.307
Female	8.50 ± 1.16		7.80 ± 1.16		7.88 ± 2.01	
Batch						
1 <sup>st</sup> year	3.33 ± 1.25	F=0.20 p=0.75	5.55 ± 1.53	F=1.41 p=0.49	3.07 ± 2.26	F=2.81 p=0.03*
2 <sup>nd</sup> year	3.33 ± 1.19		5.62 ± 1.28		3.44 ± 1.40	
3 <sup>rd</sup> year	3.33 ± 1.16		5.83 ± 1.29		3.68 ± 1.67	

Religion						
Hindu	8.12 ± 1.30	F=1.64 p=0.36	7.65 ± 1.5	F=1.34 p=0.41	8.26 ± 1.95	F=1.67 p=0.27
Muslim	8.20 ± 1.14		8.01 ± 1.58		9.41 ± 1.01	
Christian	8.42 ± 1.26		8 ± 1.26		8.10 ± 3.19	

**Table 3: Knowledge, Attitude, and Practice regarding COVID-19 infection among medical students (N=360).**

Questions	Response N (%)	
	Correct	Incorrect
1. What is COVID-19 stands for?	310(86.1)	50(13.8)
2. Corona virus is a?	320(88.8)	40(11.2)
3. Minimum concentration of alcohol in hand sanitizer needed to kill the COVID-19 virus?	290(80.5)	70(19.4)
4. Common mode of transmission of COVID-19 infection?	310(86.1)	50(13.8)
5. Most effective mask preventing corona infection?	330(91.6)	30(8.34)
6. High risk age group for Covid infection?	325(90.2)	35(9.8)
7. Is there any specific drug to treat COVID-19 infection?	312(86.6)	48(13.4)
8. Touching or shaking hands with infected COVID-19 persons will result in spread of infection?	340(94.4)	20(5.6)
9. It is not necessary to take necessary preventive measures for paediatrics and young adults against COVID-19 infection?	316(87.70)	24(6.3)
10. Can asymptomatic patient spread COVID-19 infection?	328(91.1)	32(8.9)
11. Are you sure COVID-19 infection will be successfully contained?	314(87.2)	46(12.8)
12. Do you think government's initiatives to prevent COVID-19 are adequate?	250(69.4)	10(2.6)
13. Media coverage (e.g. newspaper, television, online) gives much exposure to the news about the COVID-19 virus?	330(91.6)	30(8.4)
14. If you get symptoms, do you do anything to avoid isolation?	340(94.4)	20(5.56)

15. Do you believe that you can prevent yourself from being infected by COVID-19 by practising proper social distancing, wearing mask and self-hygiene?	310(86.1)	50(13.9)
16. Is lockdown an effective measure to slow the spread of infection?	350(97.2)	10(2.8)
17. Will you avoid attending crowded places or mass functions, even when invited by close acquaintances?	350(97.2)	10(2.8)
18. Do you think it is necessary to follow official updates about the COVID-19 infection?	345(95.8)	15(4.2)
19. Do you think it is necessary to verify the WhatsApp forward messages about COVID-19 infection?	300(83.5)	60(16.6)
20. Are you ready to treat COVID-19 infected patients?	290(80.5)	70(19.4)
21. What will you do if you are have or suspected to have had contact with an infected person?	325(90.2)	35(9.7)
22. Have you washed your hands with soap and water for at least 40 seconds after going to crowded places/nose blowing/coughing/sneezing?	330(91.6)	30(8.3)
23. Did you carry hand sanitizer with you?	316(87.5)	44(12.2)
24. Did you maintain social distance in hostel, mess, college?	290(80.5)	70(19.4)
25. Did the hopping frequency has been reduced after the outbreak?	240(66.6)	100(27.7)
26. Did you decreased the use of public transport after the outbreak of COVID-19?	290(80.5)	70(19.4)
27. Did you cancelled or postponed any meeting with friends/eating out/sport events?	200(55.5)	160(44.4)
28. Did you discussed about COVID-19 appropriate behaviours with your family/friends?	310(86.1)	50(13.8)
29. Did you monitor your personal physical health?	320(88.8)	40(11.1)
30. Did you persuade people around you to follow precautionary guidance?	330(91.6)	30(8.4)

In Above table Questions (1-10) for knowledge, (11-20) for Attitude, and (21-30) for Practice regarding Covid-19 infection.

Maheswari et al (8) study shows 92.7% students has extensive knowledge, more than 80% showed positive attitude towards COVID-19.

**Conclusion:** Our study found that 94%, 85%, 93% students have adequate KAP levels. Such KAP studies on COVID-19 should be conducted across other medical college. If low KAP levels found, we should educate our medical students so that if 3rd wave arises we can use the help of medical students for management of mild covid cases if manpower crisis occurs.

#### Limitations:

Due to the questionnaire being self-answered by the participants, there is also a high chance of errors or misrepresentation of information. Less demographic variables were also an limitation.

#### REFERENCES:

- Hui DS, I Azhar E, Madani TA, Ntoumi F, Kock R, Dar O, et al. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health - The latest 2019 novel coronavirus outbreak in Wuhan, China. *Int J Infect Dis.* 2020;91:264-6
- WHO. Coronavirus disease (COVID-19): Situation report-194. World Health

- Organization, 2020. Available at: <https://www.who.int/docs/default-source/coronavirus/situation-reports/>. Accessed on 13 February 2022.
- Worldometer. Covid-19 Coronavirus pandemic, 2020. Available at: <https://www.worldometers.info/coronavi>. Accessed on 13 February 2022.
- Ministry of Health and Family Welfare. Covid-19, India. Available at: <https://www.mohfw.gov.in>. Accessed on 13 February 2022.
- Guo YR, Cao QD, Hong ZS, Tan YY, Chen SD, Jin HJ, et al. The origin, transmission and clinical therapies on coronavirus disease 2019 (COVID-19) outbreak - an update on the status. *Mil Med Res.* 2020;7(1):11.
- Singhal T. A Review of Coronavirus Disease-2019 (COVID-19). *Indian J Pediatr.* 2020;87(4):281-6
- Kalliath J, Kizhatil A, Rose B, Kuncheria A, John A. Knowledge, attitude, and practice regarding COVID-19 pandemic among medical students of Ernakulam, India. *ijdhealth [Internet].* 14Apr.2021;4(Special1):337-42
- Maheshwari S, Gupta PK, Sinha R, Rawat P. Knowledge, attitude, and practice towards coronavirus disease 2019 (COVID-19) among medical students: A cross-sectional study. *J Acute Dis* 2020;9:1004