

Original Research Article

Attitude and adherence to COVID preventive protocols of MBBS and BSc nursing students in West Bengal: a multicentric cross sectional study

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ABSTRACT

Background: COVID-19 is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease is transmitted from human to human by respiratory droplets. Poor hand hygiene, poor cough etiquette, social gathering is responsible for spreading the disease. Droplet spread can be checked by proper wearing of face mask, frequent washing of hands, covering coughs and sneezes, social distancing, avoiding ill-ventilated areas. It is not easy to educate common people and change their health-related behaviours within a very short period of time. But medical students and nursing students are expected to be more stringent in adhering to these behaviours compared to common people. We aimed to evaluate the attitude and adherence to the SARS-COV-2 corona virus preventing health related behaviours of the MBBS students and nursing students and to evaluate similar behaviours in their family members.

Methods: Cross sectional questionnaire based observational study among MBBS and BSc nursing students of 2 medical colleges at West Bengal, India.

Results: 320 MBBS and BSc nursing students participated in the study. Majority of the subjects followed COVID protocol according to World Health Organization (WHO) guidelines but there were some lapses in attending protocols for social gathering, proper use of masks and proper hand hygiene and using public transports while attending examinations.

Conclusions: Majority of the subjects followed COVID protocol but some more education is still needed, especially proper hand hygiene, proper use of masks and avoiding social gatherings. This is needed so that they can impart better education to the society.

Keywords: COVID, Protocols, Attitude, Awareness, MBBS students, Nursing students

INTRODUCTION

In December 2019, a pathogenic human coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease 2019 (COVID-19), was recognized in the Wuhan city in China. On 30 January 2020, World Health Organization (WHO) declared it public health international emergency. On 11 March 2020,

WHO changed the status of the COVID-19 emergency to a pandemic.¹ The continuously rising number of the affected patients and deaths across the globe is overwhelmingly daunting.

In India, a confirmed case of COVID-19 was reported on 30 January 2020, who was a student travelled from Wuhan, China, and had successfully recovered from the infection

on 14 February 2020. Since then, the disease has spread relentlessly amongst the citizens of this country. As of 07 August 2021, total 3.19 crore COVID cases and 4.27 lakh death due to COVID-19 disease happened in India.

Poor hand hygiene, poor cough etiquette, social gathering is responsible for spreading the disease. Droplet spread can be checked by the following measures - proper wearing of face mask, frequent washing of hands, covering coughs and sneezes, social distancing, avoiding ill-ventilated areas.¹⁰

It is not easy to educate common people and change their health-related behaviours within a very short period of time. But medical students and nursing students and their family members are expected to be more stringent in adhering to these behaviours compared to common people.

COVID-19 is a contagious disease caused by SARS-CoV-2 which is a single standard RNA genome. The disease is transmitted from human to human by respiratory droplets. Respiratory infections can be transmitted through droplets of different sizes: when the droplet particles are >5-10 µm in diameter they are referred to as respiratory droplets, and when then are <5 µm in diameter, they are referred to as droplet nuclei.² According to current evidence, COVID-19 virus is primarily transmitted between people through respiratory droplets and contact routes.³⁻⁸

Droplet transmission occurs when a person is in in close contact (within 1 m) with someone who has respiratory symptoms (e.g., coughing or sneezing) and is therefore at risk of having his/her mucosae (mouth and nose) or conjunctiva (eyes) exposed to potentially infective respiratory droplets. Transmission may also occur through fomites in the immediate environment around the infected person.⁹ Therefore, transmission of the COVID-19 virus can occur by direct contact with infected people and indirect contact with surfaces in the immediate environment or with objects used on the infected person (e.g., stethoscope or thermometer).

Poor hand hygiene, poor cough etiquette, social gathering is responsible for spreading the disease. Droplet spread can be checked by the following measures - proper wearing of face mask, frequent washing of hands, covering coughs and sneezes, social distancing, avoiding ill-ventilated areas.¹⁰

In January 2021, vaccination against corona virus disease started in India. Till that time, these health measures were all that were recommended and at the same time, effective to some extent in preventing person to person spread of the disease. Even after injecting two doses of vaccine, people are being instructed to abide by all these health norms meticulously. In this study, we aimed to evaluate the attitude and adherence to the SARS-COV 2 corona virus preventing health related behaviours of the MBBS students

and nursing students and to evaluate similar behaviours in their family members.

METHODS

It was a cross sectional questionnaire based observational study, done on MBBS and BSc nursing students of College of Medicine and JNM Hospital, Kalyani and University College of Nursing, JNM Hospital, Kalyani and Midanpur Medical College, Midnapur, 2 medical colleges at West Bengal.

Study population

MBBS and BSc nursing students of the above centres, who agreed to participate were a part of the study population.

Objectives

Objective of the study was to evaluate the attitude and adherence to the SARS-COV-2 corona virus preventing health related behaviours of the MBBS students and nursing students and to evaluate similar behaviours in their family members.

Inclusion criteria

MBBS and BSc Nursing students of College of Medicine and JNM Hospital, Kalyani and University College of Nursing, JNM Hospital, Kalyani and Midanpur Medical College, Midnapur, who agreed to participate in the study were included.

Exclusion criteria

Participants who did not agree to give informed consent for the study were excluded.

Study duration was 1 month (August 2021 to September 2021).

A Google form was created having 25 multiple choice questions covering demographic variables and questions related to adherence to COVID protocols. This was circulated among student groups by WhatsApp or email id and response were calculated after submission of their response.

Data collection was started after getting necessary clearance from scientific review committee and institutional ethics committee of both the institutions separately.

Participants were informed that their responses would remain confidential. After making them understand the process, we tried to get their informed consent and 320 MBBS and BSc nursing students gave responses in the google form.

Results were analyzed using statistical package for the social sciences (SPSS) package. Responses will be calculated in percentage for each response for each question and those were expressed in pie diagram.

RESULTS

320 subjects participated in the study, among them 117 were male and 203 were female.

128 nursing students and 192 MBBS students gave responses.

Table 1: Demographic variables of study participants.

Male student	Female student	Total participants
117	203	320
MBBS student	BSc nursing student	Total participants
192	128	320

Among the participants, 53.4% had 4-5 family members in their families. 55% had no elderly member (age more than 60 years) in their family. 95 subjects had 1 and 38 subjects had 2 elderly family members and only 16 had more than 2 elderly members in their family.

While answering about how did they connect to their friends or relatives in lockdown period, 90% told that they maintained contact only by phone and only 10% had met them physically by going to their houses or restaurants.

During lockdown period, 37% subjects said that they allowed maid servant for paid holidays for more than 6 weeks whereas 29% did not gave holiday at all. According to their assumption, COVID case in their family was related to professional activities, as felt by 48% subjects and 35.4% felt that day to day visit to market or office by public transport was the main reason (Figure 1).

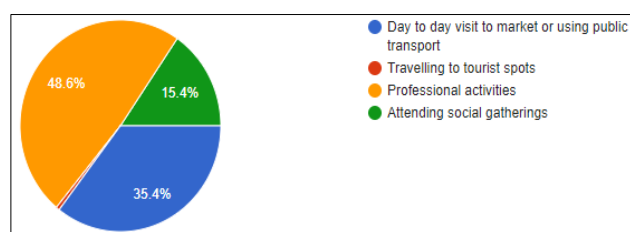


Figure 1: According to their assumption, COVID case in their family was related to which reason.

While answering about how many areas have, they travelled except home and workplace from March 2020 to May 2021, following was the response. 38.5% did not travel, whereas 17.5% had travelled more than 3 places.

Since March 2020 to May 2021, 34.4% told that they have not attended any social gathering and 17% told that they

attended 3 or more social gatherings. Those who attended social gatherings, they told that 55.5% of those had less than 50 invitees and 81.7% of those told they wore masks during attending those gatherings.

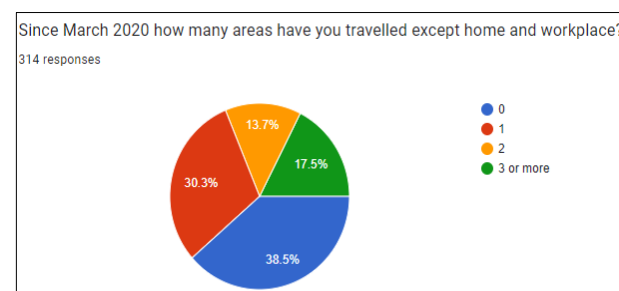


Figure 2: How many areas they have travelled except home and workplace.

While asking about their activity during professional examinations, as they were offline examinations for medical and nursing students, following was the response (Figure 3).

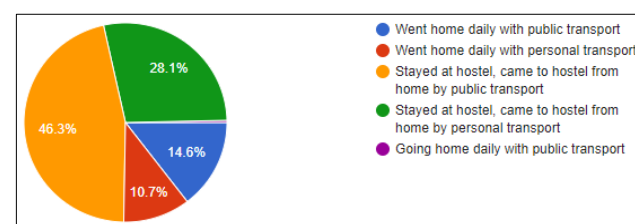


Figure 3: How did you travel to your college during examination in 2021.

While answering about the condition of their hostel room when they came back after lockdown period, following was the response (Figure 4).

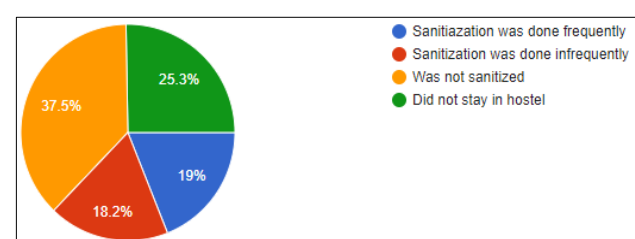


Figure 4: Condition of their hostel room when they came back after lockdown period.

Ideal duration of proper hand washing was 20 seconds. In our study, 62.5% subjects had followed that. 65% had told that soap was the preferred mode of hand washing and 31% preferred alcohol-based sanitizers.

While asking about the type of masks they used during outdoor activities, following was the response (Figure 5).

While asking about how many days you are using same mask at a stretch, 38% told that they used for 1 day whereas

21.8% used that for 4 days or more, 16.7% used for 3 days at a stretch.

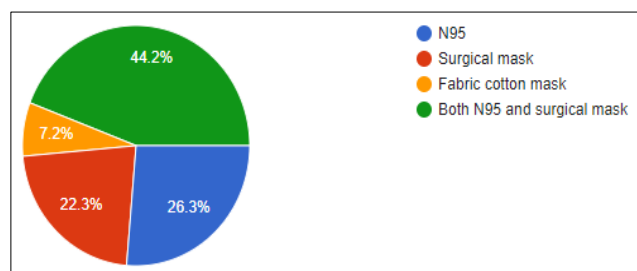


Figure 5: Preferred mask during outdoor activities.

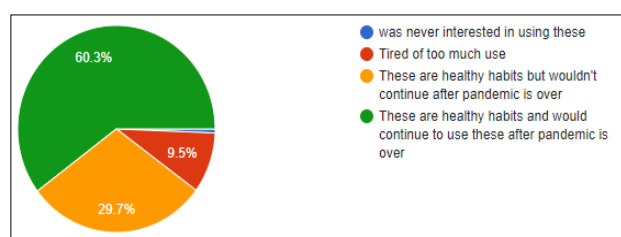


Figure 6: View about mask and sanitizer use.

48.3% subjects were satisfied about their safety practices and 43% told that there was some lapses and rest agreed that they did not follow safety measures adequately. While asking about their view about mask and sanitizer use, following was the response (Figure 6).

DISCUSSION

Whenever there is little decrease in COVID incidence, people tend to follow covid protocols less but these need to be followed strictly to prevent further surge in covid cases in this state and country. MBBS students and Bsc nursing students are the future front line health care workers who need to follow these protocols not only themselves but also should educate their family members and neighbours about proper adherence of these protocols.

In a cross-sectional study conducted from 01 December to 30 December, 2020 among randomly selected 407 undergraduate students from higher education institutions in Ethiopia, despite three-fourths of the participants had a good knowledge, the attitude and prevention practices were low. Age, study year, college of study, presence of chronic illnesses, use of social media, family income, and residence were factors of knowledge, attitude, and prevention practices towards COVID-19.¹¹

A study was done to evaluate the knowledge, attitude, and practice about COVID-19 among primary health care providers (PHPs) at three tertiary care hospital, Peshawar, Pakistan, most of the participants knew the term COVID-19 and its mode of transmission (90%), signs and symptoms (84%) and risk factors (72%) associated with it. Most of the participants agreed that COVID-19 can be

transmitted through coughing and sneezing (74.3%) and 84.6% were in favor that COVID-19 can be prevented by adopting preventive measures. Around 68.8% of the participants disagreed with the use of antibiotics in the prevention of COVID-19.¹²

In our study, majority of the subjects followed COVID protocol according to WHO guidelines as they knew the modes of transmission but while applying the knowledge into practice, there were some lapses. Some more education is still needed so that they can impart better education to other members of the society.

Proper hand washing technique and duration should be known to all. Their room was not properly sanitized as claimed by some students, should be looked after better by the college authorities.

The study would be better if larger samples could be included and other colleges from eastern India could be included. But this study will act as fact check how much medical and nursing students are following the COVID protocols which actually should be followed by all.

CONCLUSION

In our study, 320 medical and nursing students participated. Majority of the subjects followed COVID protocol according to WHO guidelines but some more education is still needed, especially proper hand hygiene, proper use of masks and avoiding social gatherings during pandemic. College authority should also ensure proper sanitization of their hostel rooms. This education is needed so that they can impart better education to other members of the society.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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