Original Research Article

Assessment of knowledge, awarness, and covid appropriate behaviour of MBBS students regarding covid-19 pandemic

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Abstract

Background: The present study was conducted to assess knowledge, awareness andpractice of MBBS students regarding COVID-19 pandemic. **Materials & Methods:** 170 Medical students of both genders were given a questionnaire regarding clinical symptoms, transmission routes, prevention, andcontrol of COVID-19. **Results**77% showed that SARS-CoV-2 is the cause of COVID- 19. Main symptoms are fever, fatigue, dry cough and myalgia was replied true by 90%, 90% replied that 2-14 days is the incubation period of Covid- 19, the overall mortality was correctly answered by 80% and 83% correctly showed that rRT-PCR is the laboratory test available for detection of COVID- 19. The difference was significant (P< 0.05). 75% replied that COVID- 19 increased the frequency of washing hands, 70% replied that COVID- 19 increased the frequency of using hand sanitizers, use of handkerchief while coughing is by 75%, unnecessary travel is avoided by 81%, 78% maintain social distance. The difference was significant (P< 0.05). **Conclusion:** Most of the students had sufficient knowledge, awareness and practice of regarding COVID-19 pandemic.

Key words: COVID, Knowledge, Pandemic.clusion

Introduction

In India first confirmed case of covid-19 was reported on 30th January 2020, a medical student who travelled from Wuhan, china and has successfully recovered from the infection on 14th February 2020. On 8th October the ministry of health and family welfare confirmed a total of 3,39,15,569 confirmed case,2,40,221 active cases,3,32,25,221 cured/discharged cases and 4,50,127 death cases in the country from 32 states/union territories. The infection rate covid-19 in India is reported to be significantly lower thanthe worst effected countries, as the reported on 8th october 21.

The clinical symptoms are varied and manifest as fever, nasal congestion, sore throat, sneezing, loss of taste and smell. People with co-morbidities, including hypertension and diabetes are on greater risk of covid infection & its complications. Multiple studies have emerged assessing the virological characteristics and clinical consequences of Covid-19. However not enough studies focused on exploring the knowledge, perceived severity and controllability of the covid-19 among the communities living this pandemic.

The knowledge and behavior assessment of the public towards outbreak is essential especially due to large amount of the misconceptions and false information that are circulating on social media regarding transmission of the disease and methods of the acquisition. The present study will be conducted to assess knowledge, awareness and practice of MBBS students regarding covid-19 pandemic.

Aims and objectives

This study aimed to assess the knowledge, attitude and practice of Bihar medicalundergraduate students toward covid 19 disease.

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Materials & Methods

170 Medical students of both genders from IGIMS, PATNA were given a questionnaire regarding clinical symptoms, transmission routes, prevention, and control of COVID-19 & it is assumed that most of the students had sufficient knowledge, awareness and practice of regarding COVID-19 pandemic

The present study was conducted on 170 MBBS students of both genders. All wereinformed regarding the study and their consent was obtained. Details such as name, age, gender etc. was recorded. All students were given a questionnaire regarding clinical symptoms, transmission routes, prevention, and control of COVID-19.

Knowledge was checked by asking COVID- 19 is causes by which virus, symptoms inCOVID- 19, incubation period, mortality rate, and laboratory test available to detect COVID- 19. Practice was checked by asking did COVID- 19 increased the frequency of washing hands, hand sanitizers, handkerchief, do you avoid unnecessary travel, do you maintain social distance. These questions were responded on a true/false/I don't know option. The true answer was assigned with 1 point and false/I don't know answers were assigned with 0 point. Higher scores represented a better knowledge of COVID-19. Results were tabulated and subjected to statistical analysis. P value < 0.05was considered significant

Result

Study of parameters

Table 1, Fig. 1 shows that 3rd year had 10 males and 15 females, 4th year had 20 males and 30 females, interns had 40 males and 55 females. The difference was significant (P< 0.05).

Table 1: Distribution of participants

Year	Male (70)	Female (100)	P value
3rd year	10	15	0.01
4th year	20	30	
Intern	40	55	

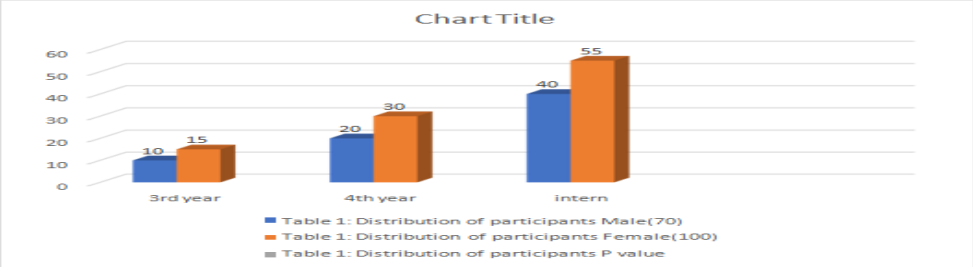

Fig 1: Distribution of participants

Table 2:Questionnaire

Questionnaire	Correct response	Incorrect response	P value	
1. COVID -19 causative virus	77%	23%	0.03	
2. Main symptoms	90%	10%	0.01	
3. Incubation period	72%	28%	0.03	
4. Mortality rate	80%	20%	0.02	
5. Test to detect COVID-19	83%	17%	0.02	

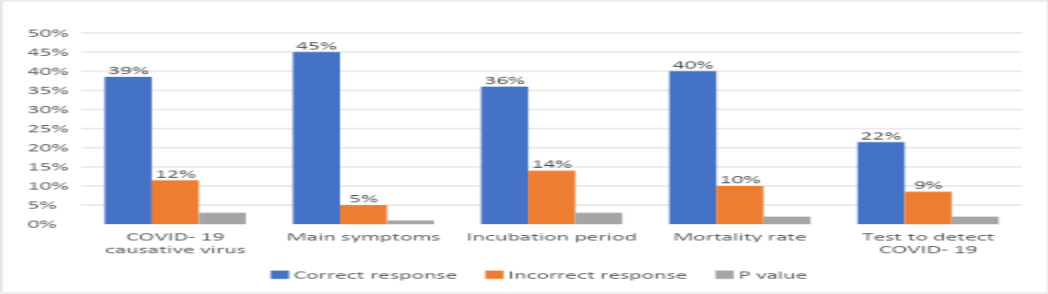

Fig 2:SARS-CoV-2is the cause of COVID- 19.

Table 2, Fig. 2 shows that 77% showed that SARS-CoV-2is the cause of COVID- 19. Main symptoms are fever, fatigue, dry cough and myalgia was replied true by 90%, 90% replied that 2-14 days is the incubation period of Covid- 19, the overall mortalitywas correctly answered by 80%and 83% correctly showed that rRT-PCR is the laboratory test available for detection of COVID-19. The difference was significant (P< 0.05).

Table 3:Questionnaire

Questionnaire	Response	%	P value
COVID- 19 increased the frequency of washing hands?	Yes	78%	0.03
	No	20%	
	I don't know	2%	
COVID- 19 increased the frequency of using handsanitizers?	Yes	72%	0.02
	No	24%	
	I don'tknow	4%	
Do you cough usinghandkerchief?	Yes	75%	0.02
	No	15%	
	Don't know	10%	
Do you avoid unnecessary travel	Yes	81%	0.01
	No	14%	
	Don'tknow	5%	
Do you maintain social distance?	Yes	78%	0.05
	No	10%	
	Don'tknow	12%	

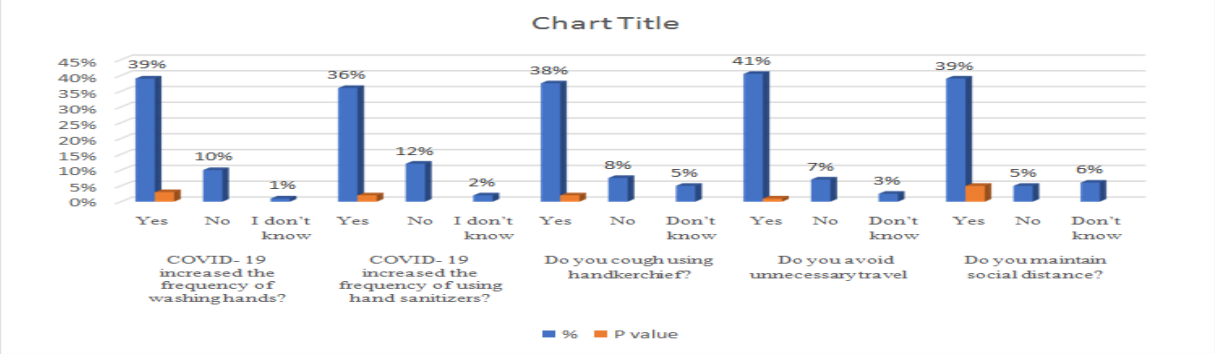

Fig 3:Different parameters

Table 3, Fig. 3 shows that 75% replied that COVID- 19 increased the frequency of washing hands, 70% replied that COVID- 19 increased the frequency of using hand sanitizers, use of handkerchief while coughing is by 75%,unnecessary travel is avoided by 81%, 78% maintain social distance. The difference was significant (P< 0.05).

Discussion

The Coronavirus Disease 2019 (COVID-19) pandemic has caused an unprecedented disruption in medical education and healthcare systems worldwide. The disease can cause life-threatening conditions and it presents challenges for medical education, as instructors must deliver lectures safely, while ensuring the integrity and continuity of the medical education process. It is therefore important to assess the usability of online learning methods, and to determine their feasibility and adequacy for medical students[8]. COVID-19 prompted implementation of public health protocols to control the spread of the virus, many of them involving social distancing, hand washing, and lockdown procedures, but has also resulted in creating public anguish and massive fear, particularly among the unaffected population[9]. The present study was conducted to assess knowledge, awareness and practice of MBBS students regarding COVID-19 pandemic.

We found that3rd year had 10 males and 15 females, 4th year had 20 males and30 females, interns had 40 males and 55females. We found that 77% showed that SARS-CoV-2 is the cause of COVID- 19. Main symptoms are fever, fatigue, dry cough and myalgia was replied true by 90%, 90% replied that 2-14 days is the incubation period of Covid- 19, the overall mortality was correctly answered by 80% and 83% correctly showed that RT-PCR is the laboratory testavailable for detection of COVID- 19.75% replied that COVID- 19 increased the frequency of washing hands, 70% replied that COVID- 19 increased the frequency of using hand sanitizers, use of handkerchief while coughing is by 75%, unnecessary travel is avoided by 81%, 78% maintain social distance.

Maheshwari et al[11] found that out of the total participants (n=354), 50.3% were male and 54.5% were 21-23 years. Almost all the participants (96.6%) increase the frequency of washing hands under the influence of COVID-19. Although no significant relationship was found between different religions, age-categories in terms of knowledge, the participants who were aged 21-23 years had higher knowledge. In addition, gender had a significant impact on practice scores (P<0.05) while no demographic variable was found to have a significant relation with attitude score (P>0.05).The majority of the participants had good knowledge, positive attitude, and sufficient practice. Females and males have significantly different practices. Although the results are very positive, it is suggested that people should continue to strengthen knowledge, attitude, and practice towards COVID-19, so that India can win the battle against the disease. Khasawneh et al[12] found that medical students used mostly social media (83.4%) and online search engines (84.8%) as their preferred source of information on COVID-19 and relied less on medical search engines (64.1%).

Most students believed that hand shaking (93.7%), kissing (94.7%), exposure to contaminated surfaces (97.4%), and droplet inhalation (91.0%) are the primary mode of transmission but were indecisive regarding airborne transmission with only 41.8% in support. Participants also reported that elderly with chronic illnesses are the most susceptible group for the coronavirus infection (95.0%).

As a response to the COVID-19 pandemic more than 80.0% of study participants adopted social isolation strategies, regular hand washing, and enhanced personal hygiene measures as their first line of defense against thevirus.

Conclusion

Overall, medical students in Bihar showed expected levels of knowledge and attitude regarding COVID-19 and reported good precautionary measures. Similar to most reports, obtaining medical information, however, tend to depend more on social media rather than scientific sources. Countries where the epidemic is hitting hard should implement strategies to keep their medical students updated about emerging public health and medical emergencies. Students should also be properly guided to proper sources of information during these times. When push comes to shove, students should also be equipped with medical knowledge, proper attitude, and good precautionary measures. Given current global situation, more frequent utilization of social media by medical schools to spread knowledge become a necessity and plans should be placed to implement such dissemination in early stages of medical and public health emergencies.

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