

Original Research Article

A Cross - Sectional Study on Knowledge and Attitude Associated with Covid-19 among Undergraduates: An Institutional Survey in a Private Medical College

K.Gangadhara Reddy¹, Ashok Parvathala², Banerji Neerugatti³

¹Assistant Professor, Department of Community Medicine, Dr.V.R.K Women's Medical College Teaching Hospital and Research Center, Aziznagar, Moinabad, R.R District Telangana, India

²Assistant Professor, Department of Community Medicine, Mallareddy Medical College for Women, Jeedimetla, Suraram X roads, Quthbullapur, Hyderabad, Telangana, India

³Assistant Professor, Department of Community Medicine, ASRAMS, Eluru, West Godavari District, India

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Abstract

Background: Coronavirus Disease 2019 is a rapidly expanding pandemic caused by a novel human coronavirus (SARS-COV-2). An infection (COVID-19) without any specific cure makes the people more vulnerable to get affected due to insufficient knowledge and unhealthy practices. A poor understanding of the disease leading to rapid spread of infections. **Aims:** To assess the Knowledge and Attitude among undergraduates towards COVID-19 pandemic. **Material & Methods: Study Design:** Cross-sectional study. **Study area:** Dr.V.R.K Women's Medical College, R.R district, TELANGANA. **Study Period:** 3 months (1st September 2020 - 30th November 2020). **Study population:** Second year and Third year MBBS students joined in Dr.V.R.K Women's Medical College. **Sample size:** All the second year and third year MBBS students who were available online at the time of study. **Study tools:** A predesigned & pretested questionnaire was used for collecting the data after validating the questionnaire. Questionnaire was developed in English language. **Statistical Analysis:** The collected data was entered in Microsoft excel 2007 and analysed using SPSS version 20 software, trial version. Data was described in terms of mean \pm standard deviation, frequencies as appropriate. The results were presented in the form of charts, graphs, etc. The statistical significance level was fixed at $P < 0.05$. **Results:** Overall the knowledge percentage was 86.1% among the study population. 74.2% of the study population had correct knowledge regarding incubation period and symptoms.

Keywords: SARS-COV-2, COVID-19 pandemic, Knowledge and Attitude.

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Introduction

In late December 2019, a cluster of patients with an outbreak of pneumonia of unknown cause was reported in Wuhan, China [1]. By January 7, a novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARSCoV- 2), was identified as the cause to the coronavirus disease 2019 (COVID-19) [2]. Virus quickly spread in other regions in China as well as other countries; human-to-human transmission was proved [3]. World Health Organization (WHO) declared COVID-19 a Public Health Emergency of International Concern on January 30, 2020 [4], and declared coronavirus disease as a pandemic on March 11, 2020 [5]. The WHO has currently also prepared guidelines to fight corona virus by introducing eight pillars of support [6]: 1) Country level coordination, planning and monitoring 2) Risk communication and community engagement 3) Surveillance, rapid response teams and case investigations 4) Points of entry 5) National laboratories 6) Infection prevention and control 7) Case management 8) Operational support and logistics.

To mitigate the outbreak, India quickly announced the highest-level public emergency response and took a series of extraordinary measures including series of Lock downs throughout entire country.

*Correspondence

Dr. Ashok Parvathala

Assistant Professor, Department of Community Medicine, Mallareddy medical college for women, Jeedimetla, Suraram X Roads, Quthbullapur, Hyderabad, Telangana, India.

E-mail: ashokparvathala27@gmail.com

At the same time, a series of other measurements were imposed in the entire country, including rigorous in-door quarantine, person-to-person health check-up, massive disinfection, ubiquitous public health education programs, as well as school and workplace closures. Ubiquitous public health education programs, including internet messages, broadcasting and multimedia reports, virtual classes, e-hospital consultations and flyers of educational materials, played a vital role in public readiness. The outbreak put entire educational system in unprecedented difficult situations; particularly, undergraduate students represented a special group that was at the ages to acquire autonomy and independence of life but with limited experiences. Therefore, their perceptions and behaviours were posited to be greatly affected by the pandemic, which needed to be explored. As the risk of COVID-19 becomes more widespread, people should take steps to safeguard themselves from infection and limit its spread to others. Though the students from medical and allied health sciences are not directly involved in managing COVID-19 patients, they can serve as an information provider. They can sensitize community people about maintaining personal hygiene, symptoms of COVID-19 and how to prevent its spread. Students must possess the basic knowledge about novel Coronavirus and be able to clear the myths pertaining to COVID-19. With this background, our study is aimed to assess the knowledge and attitude about COVID-19 among medical undergraduates in a teaching medical college.

Aim: To assess the Knowledge and Attitude among undergraduates towards COVID-19 pandemic.

Material & Methods

Study Design: Cross-sectional study.

Study area: Dr.V.R.K Women’s Medical College, Aziznagar, Moinabad, R R District, TELANGANA.

Study Period: 3 months (1st September 2020 - 30th November 2020).

Study population: Second year and third year MBBS students joined in Dr.V.R.K Women’s Medical College, Telangana.

Sample size: All the Second year and third year MBBS students who were available online at the time of study.

Sampling method: Purpose or convenient sampling method.

Inclusion criteria: All the second and third year MBBS students who were willing to participate in the study.

Exclusion criteria: students those who don’t give consent and not willing to participate in the study.

Study tools: A predesigned & pretested questionnaire was used for collecting the data. Questionnaire was developed in English language. Questionnaire consisted of demographical details, 5 questions regarding knowledge and 6 questions regarding attitude. Those who answered 3 or more in knowledge questions were considered to be having good/correct knowledge. And those who answered 4 or more in attitude questions were considered to be having good/positive attitude.

Ethical consideration: Institutional Ethical committee permission was taken prior to the commencement of the study.

Data collection procedure: After obtaining institutional Ethical clearance, The purpose of the study was explained to the undergraduate students and all their consent was taken in this regard. The data was collected by using validated, semi-structured, pre-tested (pilot tested), proforma, which consisted of their socio-demographical details and questions regarding knowledge and attitude about covid-19.

Statistical Analysis: The collected data was entered in Microsoft excel 2007 and analysed using SPSS version 20 software, trial version. Data was described in terms of mean ± standard deviation, frequencies as appropriate. The results were presented in the form of charts, graphs, etc. The statistical significance level was fixed at P < 0.05.

Observation & Results

A total of 89 students gave consent and participated in the study by filling up the questionnaire. The age of the study subjects ranged between 18 years to 27 years. The mean age was 21.089 ± 2.66 years and the median age was 20 years. Most (34.8%) of the students were in the age of 20 years followed by 21 years (23.6%).

Table 1: Socio-demographical distribution of the study population

Factors	No. (%)	No. (%)	
Gender	Males – 42 (47.2%)	Females – 47(52.8%)	Total – 89 (100%)
Area	Rural – 19 (21.3%)	Urban – 70(78.7%)	Total – 89 (100%)

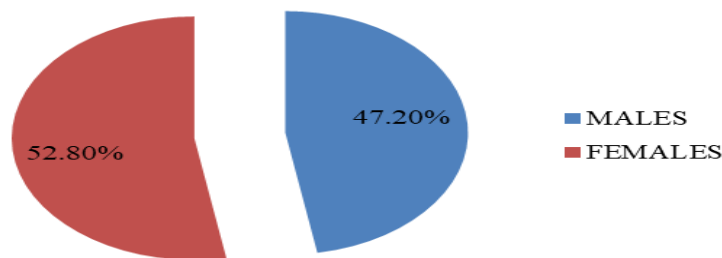


Fig. 1A: Gender distribution

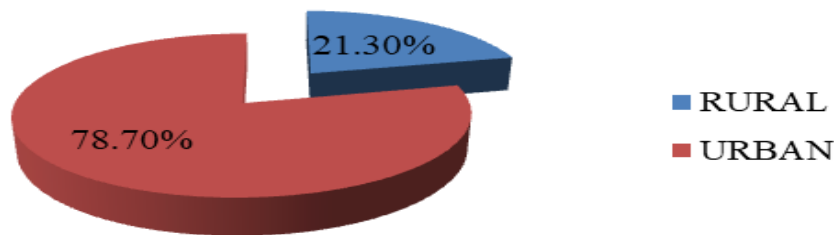


Fig. 1B: Area distribution

Table 2: Knowledge regarding Covid-19 in the study population

Questions about	Correct no.(%)	Incorrect no.(%)	Total
1 . causative agent	83(93.3%)	6(6.7%)	89(100%)
2 .Route of transm.	80(89.9%)	9(10.1%)	89(100%)
3.Incubationperiod	66(74.2%)	23(25.8%)	89(100%)
4 . symptoms	66(74.2%)	23(25.8%)	89(100%)
5 .Susceptible pop.	88(98.9%)	1(1.1%)	89(100%)

Regarding knowledge about covid-19, the study population was found to be having pretty good knowledge. Overall the knowledge percentage was 86.1% among the study population. 93.3% of the study population had correct knowledge regarding causative agent,

89.9% had correct knowledge about route of transmission and 98.9% had correct knowledge regarding susceptible population. But only 74.2% of the study population had correct knowledge regarding incubation period and symptoms.

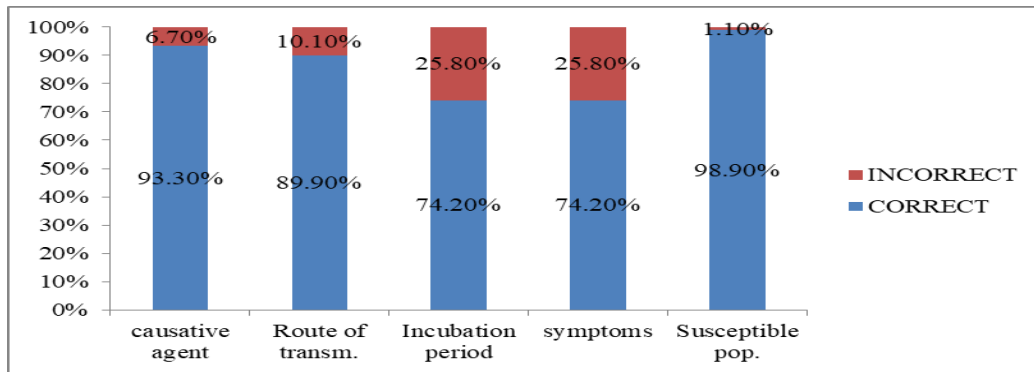


Fig. 2: Knowledge regarding covid-19 in the study population
Table 3: Attitude regarding covid-19 in the study population

Questions about	Yes no.(%)	No no.(%)	Other options
1. Fear towards disease	18(20.2%)	58(65.2%)	Same feel 13(14.6%)
2. Hope to end	66(74.2%)	23(25.8%)	-
3. Effect on studies	63(70.8%)	26(29.2%)	-
4. Work as front line worker	16(18%)	11(12.4%)	Need family suggestion 62(69.7%)
5. Meeting cured covid patient	84(94.4%)	5(5.6%)	-
6. Top priority	83 (93.2%)	6 (6.8%)	-

Regarding attitude about covid-19, the study population was found to be have less percentage of good attitude when compared to knowledge. Overall the attitude percentage was 61.8% among the study population. Only 65.2% of the study subjects opted that they do not have fear towards the disease. 74.2% of the subjects hoped that the pandemic will end soon. Majority (70.8%) of the students had felt that their studies have been affected during this pandemic. When they were asked to work as front line worker, 69.7% of the population told that they need family suggestion regarding work.

This attitude of the study subjects may be to fear towards the disease and fear of contraction of disease from the positive patients. But surprisingly 94.4% of the study subjects had good attitude towards cured covid-19 patients as they wanted to meet them without having an excuse. 93.2% of the students were ready to go to the college and start their studies was their *top priority. And only 6.8% of the students were too scared and they wanted to be in home.

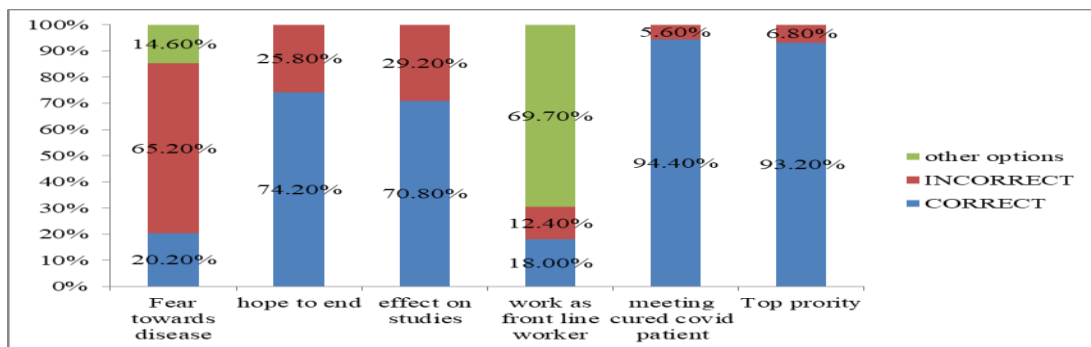


Fig. 3: Attitude regarding covid-19 in the study population

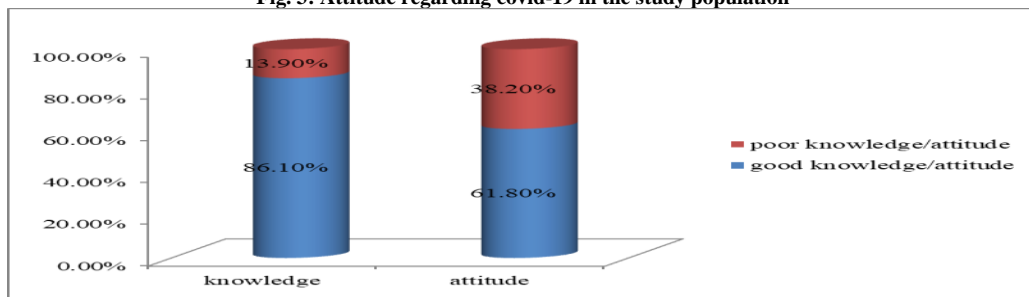


Fig. 4: Overall knowledge and attitude of the study population

Discussion

Since the outbreak in epicentre Wuhan in December 2019, COVID-19 has rapidly become a threat to global public health and led to substantial socioeconomic damages in the whole world. Focusing the global burden and the mass media attention on the virus, the present study has been designed to assess the knowledge and attitude about COVID-19 among the medical students in a teaching medical college, Telangana, India. The overall knowledge and attitude of the study population was found to be 86.1% and 61.8% respectively. Presently, wide range of information is available on the internet, including unverified biased deceptive information, which can easily misguide the public. Focus should be put on to educate and provide authentic information to the health science students so that the right information could be conveyed to the community.

Large proportion of study participants were aware and had general knowledge about COVID-19 except for symptoms of severe condition and category of people more prone to COVID-19. About 75% of participants gave the correct answer about its incubation period. Whereas, a study conducted among health care workers showed that only 36.4% correctly identified the incubation period of COVID-19 i.e. 2-14 days [7]. Other cross-sectional surveys conducted in Pakistan, China and Iran reported 96.38%, 66.40% and 85.4% correct responses about the incubation period respectively [8-10]. Information about the incubation period would be useful to identify the suspected cases and to provide medical care at an early stage. In this study, most (89.9%) of the students knew about the modes of transmission of COVID-19. In agreement to that, studies carried out by Zhong BL et al. [8], Abdelhafiz AS et al. [11] and Bhagavathula AS et al. [7] stated that 98.85%, 95.9% and only 39% respondents correctly recognized the transmission modes of novel Coronavirus. Nearly 98.9% participants in our study believed that old/geriatric or person with co-morbidities are more prone to COVID-19. Similarly, study conducted among Egyptian public also demonstrated that around 95% of study participants believe that COVID-19 is more dangerous for the elderly and patients with chronic diseases [11]. Majority (74.2%) of the students responded well to the symptoms of disease. It is very necessary that people should be informed about the most common as well as severe symptoms of COVID-19 infection through validated sources to avoid the misconception. Only 65.2% of the study subjects opted that they do not have fear towards the disease. 74.2% of the subjects hoped that the pandemic will end soon. Majority (70.8%) of the students had felt that their studies have been affected during this pandemic. 69.7% of the population told that they need family suggestion regarding to as a front line worker. 94.4% of the study subjects had good attitude towards cured covid-19 patients as they wanted to meet them without having an excuse. 93.2% of the students were ready to go to the college and start their studies was their top priority.

Conclusion

Current global pandemic situation demands substantial awareness about the clinical presentation, spread, preventive measures and management of COVID-19. We discovered that the undergraduate

students were having adequate knowledge and attitude about COVID-19. The overall good knowledge and positive attitude of the study population was found to be 86.1% and 61.8% respectively. Students should be informed about the authentic sources of information as provided by global health authorities and health ministry of respective countries. Our study finding also highlights the specific aspects of knowledge and perception where the partial or incorrect responses were noted and these areas should be addressed in future through webinars, leaflets and educational campaigns to improve understanding and to correct the myths about COVID-19.

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