



THE IMPACT OF THE COVID-19 PANDEMIC ON THE QUALITY OF LIFE OF MBBS STUDENTS AT DECCAN COLLEGE OF MEDICAL SCIENCES, HYDERABAD, TELANGANA.

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ABSTRACT

Background: COVID-19 has been recognized as an additional stressor for the general populace, particularly for medical students. It has been established that medical students exhibit elevated levels of psychological distress manifested through symptoms of depression, anxiety, and stress. This research aims to evaluate the repercussions of the COVID-19 pandemic on the quality of life of MBBS students, with a specific focus on their experiences with E-learning. **Aim:** The primary aim of this study was to examine the impact of the COVID-19 pandemic on the overall quality of life of MBBS students, with a particular focus on their e-learning experiences. **Methods:** This is a cross-sectional survey, executed with a sample size of 120 MBBS students amidst the second wave of the pandemic, at Deccan College of Medical Sciences. The survey employed a questionnaire disseminated online (Google Forms) to the cohort of medical students. The data were subjected to statistical analysis utilizing SPSS software. **Results:** The study involved 120 participants, with a higher proportion of females (57.5%) than males (42.5%). The majority were aged 20 years (38.3%) and in their 1st or 2nd year of MBBS (39.2% and 42.5%, respectively). Most participants rated their quality of life as good (70.8%) during the COVID-19 pandemic, although 15.8% reported poor sleep quality. Regarding academic performance, 55.8% felt their study quality was good, but 40.8% disagreed that e-learning was sufficient for their education. Mobile phones were the most commonly used device for e-learning (40%). **Conclusions:** The students identified a substantial interruption to their medical education, expressed an aspiration to persist with in-person clinical rotations, and demonstrated a readiness to embrace the risk of contracting COVID-19. They perceive a heightened sense of safety following their vaccination. Our innovative findings furnish a robust basis to inform the delineation of medical student responsibilities within the clinical setting amidst the ongoing pandemic and potential future health crises.

KEYWORDS : MBBS; COVID-19 Pandemic; Quality of Life; E-learning

INTRODUCTION

The COVID-19 represents a highly transmissible and infectious viral disease. Following the announcement by the World Health Organization of its status as a global pandemic on March 11, 2020, the COVID-19 pandemic has emerged as a significant global health threat.¹ Medical students experience significant psychological impacts stemming from their apprehensions regarding the potential contraction of COVID-19, their anxiety concerning future prospects resulting from the deterioration of their socioeconomic conditions, and the interruptions to their academic pursuits induced by this global pandemic.²

The concept of quality of life serves as a prevalent metric for evaluating both assessment and treatment outcomes; consequently, quality of life has evolved into an essential psychological instrument.³ A multitude of factors, encompassing age, gender, overall health status, educational environment, duration of academic study, levels of depression, stress, anxiety, and the presence of chronic illnesses, serve as predictors of the quality of life experienced by medical students.⁴ Consequently, the current investigation seeks to assess the quality of life of medical students amid the second wave of the pandemic.

Technology-enhanced educational experiences, commonly referred to as E-learning, encompass the acquisition of knowledge via the Internet, intranets, and software applications incorporating multimedia functionalities.⁵ The imperative for e-learning within the framework of modern

education proved to be exceptionally beneficial during the crisis precipitated by the second wave of COVID-19. Through the utilization of e-learning platforms, educational lectures became accessible remotely at any given time. At designated intervals, students were able to log in and engage in live discussions facilitated by professionals utilizing audio and video conferencing technologies.⁶ Conversely, the clinical training experienced inevitable detriment. The primary objective of the current investigation was to evaluate the repercussions of the COVID-19 pandemic on the quality of life of MBBS students, alongside the implications of contemporary E-learning methodologies on their educational outcomes, utilizing the online survey platform Google Forms.

MATERIALS & METHODS

Study Design And Population

This study is a cross-sectional survey that was conducted involving 120 MBBS students amidst the second wave of the COVID-19 pandemic at Deccan College of Medical Sciences, located in Hyderabad, Telangana. A total of 120 MBBS students participated by completing a standardized questionnaire administered via Google Forms. The participants comprised MBBS students from the first, second, third, and fourth years, respectively.

Data Collection

The survey questionnaire was disseminated via email and multiple social media channels targeted at students of Deccan College of Medical Sciences, utilizing an online Google Form format. The study's questionnaire encompasses

inquiries related to demographic data, quality of life assessments, and additionally, the experiences associated with E-learning.

Selection Criteria

The subsequent criteria were incorporated into the research:

- Age- 18–22 years
- Gender- Male and female
- MBBS students enrolled at Deccan College of Medical Sciences
- Medical students from the 1st, 2nd, 3rd, and 4th years, respectively.
- Students engaged in E-learning.
- Incomplete Questionnaires were omitted from the study.

Statistical Analysis

The dataset was meticulously organized utilizing Microsoft Office applications. The acquired data underwent descriptive statistical analysis employing SPSS software (version 21). The results are presented as Frequencies (n) and percentages (%) in both tabular and graphical formats.

RESULTS

The study included 120 participants, with a predominance of females (57.5%) over males (42.5%). Participants were aged between 18 and over 20 years, with the majority falling within the 20-year-old group (38.3%), followed by 19-year-olds (27.5%), 18-year-olds (23.3%), and those older than 20 years (10.8%). In terms of academic standing, most participants were in their 2nd year of medical school (42.5%), followed by 1st-year students (39.2%), 3rd-year students (10.8%), and a minority from the 4th year (7.5%).

The majority of the participants (70.8%) reported a good quality of life during the COVID-19 pandemic, while 23.3% had a neutral experience, and 5.8% described their quality of life as poor. The sleep quality was rated as good by 58.3% of respondents, with 25.8% reporting neutral sleep quality, and 15.8% experiencing poor sleep. Regarding physical and mental health, 33.3% rated their health as good, while the majority (52.5%) reported neutral health and 14.2% rated it as poor. The quality of the study was considered good by 55.8%, neutral by 33.3%, and poor by 10.8%.

Participants used a variety of electronic devices for e-learning, with 40% using mobile phones, 25.8% personal computers, 19.2% tablets, and 15% laptops. The majority (59.2%) agreed that downloadable e-learning content was preferable to live sessions, while 29.2% were neutral, and 11.7% disagreed. When asked if e-learning was sufficient for their education, 25.8% agreed, 33.3% were neutral, and 40.8% disagreed. Lastly, 40% of participants found e-learning to be useful, 57.5% rated it as neither useful nor useless, and 2.5% considered it useless.

Table 1 Demographic data of the study participants

Variables	Frequency (n=120)	Percentage (%)
Age (18 to >20 years)		
18 years	28	23.3%
19 years	33	27.5%
20 years	46	38.3%
>20 years	13	10.8%
Gender		
Male	51	42.5%
Female	69	57.5%
MBBS study year		
1st	47	39.2%
2nd	51	42.5%
3rd	13	10.8%
4th	09	7.5%

Table 2 Impact of COVID-19 on the study participants

Variables	Frequency (n=120)	Percentage (%)
Quality of Life		
Good	85	70.8%
Neutral	28	23.3%
Bad	07	5.8%
Quality of sleep		
Good	70	58.3%
Neutral	31	25.8%
Bad	19	15.8%
Quality of physical and mental health		
Good	40	33.3%
Neutral	63	52.5%
Bad	17	14.2%
Quality of study		
Good	67	55.8%
Neutral	40	33.3%
Bad	13	10.8%

Table 3 Experience of E-learning by the study participants

Variables	Frequency (n=120)	Percentage (%)
Electronic devices used		
Mobile	48	40%
Tablet	23	19.2%
Laptop	18	15%
Personal computer	31	25.8%
Is Downloadable E-learning content better than live E-learning Experience?		
Agree	71	59.2%
Neither Agree nor Disagree	35	29.2%
Disagree	14	11.7%
Is E-learning sufficient for education?		
Agree	31	25.8%
Neither Agree nor Disagree	40	33.3%
Disagree	49	40.8%
Is E-learning beneficial for You?		
Useful	48	40%
Neither Useful nor Useless	69	57.5%
Useless	03	2.5%

DISCUSSION

The demographic characteristics of this study highlight that the majority of participants were female, consistent with other studies in medical education where there is often a higher enrollment of females in medical schools.⁷ The age distribution, predominantly between 19 and 20 years, aligns with the expected age range for students in the early years of medical studies.⁸ A higher proportion of participants were in their 1st and 2nd years of MBBS, which may reflect a broader representation of junior students in the context of the pandemic's impact on medical education.

The results suggest that COVID-19 had a varied impact on the participants' quality of life, with most reporting it as good (70.8%). This is consistent with some literature suggesting that medical students, despite the stress associated with the pandemic, may exhibit resilience due to their training.⁹ However, sleep disturbances were notable, with 15.8% reporting poor sleep quality, which may relate to anxiety and disruptions in daily routines during the pandemic, as seen in other studies.¹⁰ The findings also highlight concerns about the quality of physical and mental health, as over half of the participants rated it as neutral, with a notable 14.2% reporting it as poor. This is concerning, as medical students are particularly vulnerable to mental health issues, exacerbated by the challenges of remote learning and social isolation during the pandemic.¹¹

In terms of academic performance and study quality, the data

indicate that more than half of the participants (55.8%) perceived their study quality as good, while a significant proportion (33.3%) felt neutral. These findings are consistent with prior research that shows mixed perceptions of study quality among medical students during the shift to online learning.¹² The dissatisfaction with e-learning, where 40.8% of participants disagreed that it was sufficient for education, is consistent with other studies that highlight the challenges of fully transitioning to online formats, particularly in a field as hands-on as medicine.¹³ Moreover, while 59.2% of participants preferred downloadable content over live sessions, the mixed responses regarding the sufficiency and usefulness of e-learning (with only 40% finding it useful) underline the importance of improving digital education tools and strategies for medical students.¹⁴

This study adds to the growing body of evidence on the impact of the COVID-19 pandemic on medical education. While students demonstrated resilience, there is a clear need for better support systems to address mental health, optimize online learning experiences, and ensure academic quality. Further research could focus on long-term impacts and the effectiveness of interventions aimed at improving remote learning and well-being among medical students.

CONCLUSIONS

After the second wave of the COVID-19 pandemic impacted India, we conducted a cross-sectional survey to ascertain the extent to which the pandemic influenced MBBS medical students and to gain insights into their reactions to the unprecedented national directive recommending their withdrawal from clinical rotations. A substantial proportion of the student participants recognized that their medical education had encountered considerable disruptions, articulated a commitment to maintaining their quality of life, and demonstrated a readiness to engage in E-learning during the COVID-19 crisis. Our seminal findings provide a robust framework for delineating the roles of MBBS medical students within clinical environments, both presently and prospectively during future pandemics. We shall strive to persist in our endeavours while implementing appropriate safety measures and embracing E-learning methodologies.

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