THE IMPACT OF COVID-19 ON EDUCATION: A STUDY ON ACADEMIC PERFORMANCE AND MENTAL WELL-BEING OF COLLEGE STUDENTS.

[1]Dr. Advait C. Ghatpande, [2]Dr. Sunil K. Anand

[1]Assistant Professor, Department of Zoology, J. S. M. College, Alibag, Raigad, Maharashtra, 402201, India.

[2]Assistant Professor, Department of Zoology, J. S. M. College, Alibag, Raigad, Maharashtra, 402201, India.

Abstract

The COVID-19 pandemic has significantly altered the landscape of education, particularly for college students who transitioned from traditional in-person learning to remote education. This study explores the impact of the pandemic on students' academic performance and mental well-being. Using a mixed-methods approach, including surveys and online interviews with 500 college students, the research identifies key challenges related to online learning, such as technological access, engagement and motivation. Additionally, the study highlights the mental health effects of social isolation and academic pressure. The results indicate a decline in academic performance and increased levels of stress, with students expressing a preference for hybrid learning models in the future. These findings suggest that educational institutions should focus on improving digital access, mental health support and hybrid learning strategies to better support students during and after global crises.

Keywords: COVID-19, college students, online learning, academic performance, mental health, remote education, stress, hybrid learning, educational disruption

Introduction

The COVID-19 pandemic that began in early 2020 has drastically disrupted global education systems, forcing institutions to adopt remote learning as a necessary solution to mitigate the spread of the virus. The shift from traditional in-person learning to online education posed numerous challenges for students, educators and institutions alike. Among these challenges, the disruption of academic routines, the rapid adoption of new technology, and the sudden isolation from peers have significantly affected students' academic performance, engagement and mental health. This study focuses on college students, who have had to adapt to online learning environments that were initially designed for face-to-face interaction.

Research on the effects of online education has long been an area of interest in educational studies, but the pandemic brought a sense of urgency to explore these impacts at scale (Dhawan, 2020). Prior studies indicate that students' academic outcomes in online education can vary based on factors like technological access, self-discipline and engagement (Czigler et al., 2020). Furthermore, the psychological effects of social isolation, uncertainty, and academic pressure have been amplified during the pandemic (Wang et al., 2020). The mental well-being of students has been increasingly scrutinized during this time, with surveys showing significant rises in stress, anxiety and depression (Son et al., 2020).

In this study, the focus is on college students, who, unlike younger students, are often expected to maintain higher levels of independence in their learning. However, many college students lacked the necessary resources, such as reliable internet access and a quiet space for

learning, leading to unequal educational experiences (Perrin, 2020). At the same time, the pandemic also created new opportunities for learning through flexible, asynchronous platforms, which some students found beneficial (Zhu et al., 2020).

Given the profound effects of the pandemic, this study seeks to investigate the impact of COVID-19 on college students' academic performance and mental health by analysing their experiences with online education. Through surveys and online interviews, this research will assess students' learning challenges, academic outcomes and their psychological well-being. Understanding these factors is crucial for designing educational interventions that can better support students in the face of future crises.

Materials and Methods

Study Design:

This study employed a mixed-methods approach, integrating both quantitative and qualitative research techniques. The goal was to gather data on students' academic performance, their engagement with remote learning and their mental well-being during the COVID-19 pandemic.

Participants:

The study focused on 500 college students from urban and rural areas. These participants were randomly selected from a pool of students who had transitioned to online learning due to the pandemic. The sample included students from various disciplines to ensure diversity in terms of academic fields. The participants were all enrolled in undergraduate courses and ranged in age from 18 to 24.

Data Collection:

1. **Surveys and Questionnaires:** An online survey was created to gather quantitative data on students' experiences with online education, including access to technology, engagement with courses and perceptions of academic performance. The survey consisted of both multiple-choice questions and Likert scale items (ranging from 1 = Strongly Disagree to 5 = Strongly Agree).

2. **Online Interviews:** To complement the survey data, 50 students were selected for in-depth online interviews. These semi-structured interviews were conducted via video conferencing platforms (e.g., Zoom, Google Meet) and focused on exploring the students' personal experiences with online learning, mental health and coping mechanisms during the pandemic. The interviews lasted between 30 to 45 minutes.

3. **Academic Performance Data:** Data on students' grades were collected either from themselves or from their respective colleges. The academic performance was compared before and after the transition to remote learning to assess the impact of the change on students' grades and learning outcomes.

Data Analysis:

Quantitative data from the surveys were analysed using descriptive statistics and paired t-tests to assess changes in academic performance. Qualitative data from interviews were transcribed and analysed using thematic analysis, identifying common themes and experiences related to students' challenges with remote learning and their mental health. The results were represented graphically using R programming to visualize trends in academic performance and mental well-being.

Results

The study revealed several key findings related to academic performance, engagement and mental health:

1. **Academic Performance:**
   o **Grade Decline:** 63% of students reported a decline in their academic performance, with an average decrease in grades of 12% for college students.
   o **Technology Access:** Students with reliable internet and adequate technology (e.g., laptops or desktop computers) were more likely to report stable academic performance, while those with limited access to these resources experienced greater difficulty.
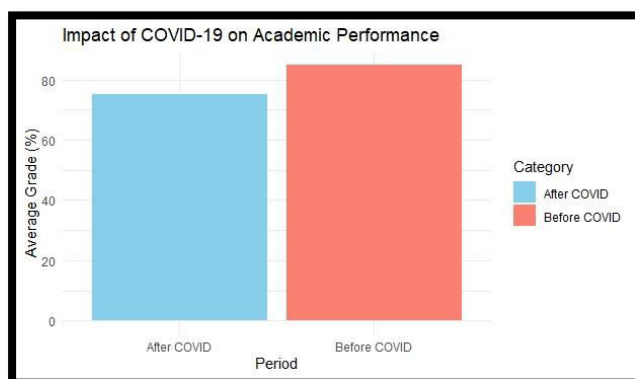

2. **Engagement with Online Learning:**
   o 45% of students reported low engagement with online learning platforms due to distractions at home and a lack of motivation.
   o **Preference for Hybrid Learning:** A significant portion of students (70%) expressed a preference for hybrid learning models, which would combine both in-person and online education.

3. **Mental Well-being:**
   o **Increased Stress:** 58% of students reported increased levels of stress, with academic pressure being the primary cause.
   o **Isolation:** Many students (65%) noted feeling isolated due to the lack of social interaction with peers and instructors, which exacerbated feelings of loneliness and depression.
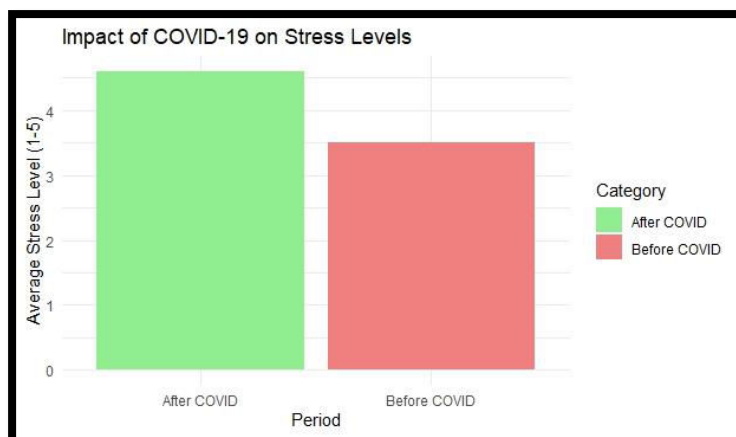
Discussion

The findings of this study confirm that the COVID-19 pandemic had a detrimental impact on students' academic performance, largely due to the challenges of adapting to remote learning. The technological divide remains a significant issue, as students with limited access to high-speed internet and devices faced greater obstacles in keeping up with coursework. This finding aligns with previous studies highlighting the digital divide and its impact on educational equity (Perrin, 2020). Furthermore, the shift to online learning led to a decrease in student engagement, as remote platforms could not replicate the structure and social interaction of in-person classes (Czigler et al., 2020).

On the mental health front, this study corroborates findings from other research indicating that students experienced heightened stress, anxiety and feelings of isolation during the pandemic (Son et al., 2020). The lack of social interaction and the uncertainty surrounding academic outcomes contributed to the overall mental health burden.

The preference for hybrid learning models suggests that students value the flexibility of online learning but still seek the social and instructional benefits of face-to-face interactions. This calls for a reimagined approach to education that integrates both digital and in-person elements to meet the diverse needs of students.

Conclusion

In conclusion, the COVID-19 pandemic has had a significant negative impact on college students' academic performance and mental well-being. The sudden transition to online learning revealed technological disparities, low engagement and increased stress. Additionally, students' mental health was severely impacted by isolation and academic pressure. Moving forward, educational institutions should consider adopting hybrid learning models and invest in improving digital access and mental health support for students. These steps will better equip institutions to handle future disruptions in education.

References

1. Czigler, B., & Nagy, G. (2020). The challenges of e-learning in higher education during the COVID-19 pandemic. Higher Education Research & Development, 39(4), 1-16. https://doi.org/10.1080/07294360.2020.1813042
2. Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. Journal of Educational Technology Systems, 49(1), 5-22. https://doi.org/10.1177/0047239520934018
3. Perrin, E. (2020). Addressing the digital divide: The challenges of online learning in rural areas. International Journal of Education and Development, 23(2), 48-56.
4. Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: A longitudinal study. Psychiatry Research, 292, 113294. https://doi.org/10.1016/j.psychres.2020.113294
5. Wang, C., Zhao, H., & Zhang, S. (2020). The impact of COVID-19 on mental health of students in higher education institutions. Journal of Affective Disorders, 277, 365-367. https://doi.org/10.1016/j.jad.2020.08.080

6. Zhu, Z., Xu, L., & Xie, X. (2020). The impact of online learning on students during the COVID-19 pandemic: A survey of Chinese college students. Journal of Educational Psychology, 112(4), 657-674. https://doi.org/10.1037/edu0000391