

# LESSONS LEARNED: ACADEMIA'S TRYST WITH THE PANDEMIC- MENTAL AND PHYSICAL HEALTH IMPACTS

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## ABSTRACT

### INTRODUCTION:

The COVID-19 pandemic brought various changes in the manner we work and the teaching-learning profession is not an exception. It is essential to understand the impact which the pandemic has had on the physical and mental well-being of the major stakeholders of the academic ecosystem.

### OBJECTIVES:

This study discusses the condition of educational institutes due to the pandemic and its impact on the mental and physical well-being of the faculty members and students.

### RESEARCH METHODOLOGY:

In order to understand the viewpoint of the students and faculty primary data collection was undertaken in graduate and postgraduate colleges in four Indian states namely Maharashtra, Gujarat, Andhra Pradesh, and Karnataka. There are approximately seven to eight thousand colleges in these four states which offer graduate and post-graduate courses. More than 80,000 students' study in these colleges. Due to the pandemic, it was not feasible to collect data from all of the colleges. In total, 25 colleges were contacted from these four states. Hence, the method of convenience sampling was used to collect the data. A structured questionnaire was designed and distributed to 1,750 students. 1,500 undergraduate and post-graduate students completed the questionnaire (85.7% response rate). From the same institutes, around 715 faculty were given a questionnaire to complete about issues faced in shifting to online teaching from offline teaching due to COVID-19. 600 faculty members completed the questionnaire (83.9% response rate).

### RESULTS:

According to the findings, online learning has progressed but is resulting in a rise in loneliness and isolation among students and teachers. When one-on-one communication between instructors and students is disrupted, the majority of students felt isolated, which can lead to poor mental and physical health in pandemics.

### CONCLUSION:

Research outcomes can help institute, university, and policymakers in designing effective mental and physical health policies or developing programs to mitigate the negative effects of online learning during the COVID-19 pandemic. These findings can help researchers discover that mental health is just as vital as physical health.

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## KEYWORDS

COVID-19, Online learning, Physical health, Mental health, Policymakers

## INTRODUCTION

Teacher-student interaction has been considered of paramount importance in the learning and understanding of the student. Researchers have shown that in-person interaction and communication are crucial in enhancing the better understanding of concepts in education. Most learners prefer offline education [3].

Like other industries, academia also has been facing the repercussions of the COVID-19 pandemic. The virus has been very detrimental to the whole world in general [7]. The major concern here is the future of millions of learners is at stake with hindrances in learning. Policy initiatives by governments across the globe to temporarily shut down universities and schools had a deep dent in the learning of the students. Now, as it has been more than two years since this virus struck, it is important to understand the impact which the pandemic levied on the physical and mental well-being of the two most important stakeholders of the academic industry - the teachers and the students.

The learning of a student is multi-faceted. The learning of a student comes not only from the teacher-student interaction but also from the peer interaction, physical infrastructures like physics and biology labs, and the learning environment of the university and schools [3]. With the lockdown in place, the in-person interaction was hindered. This had an adverse impact on the learning of the students across the world [18]. This, in turn, has had a toll on the physical and mental well-being of these learners. The shift to online platforms for teaching also brought along the physical and mental demands from the teachers as well as students [1]. Academia has had to quickly adapt to online teaching. In the absence of in-person interaction with students, it required more preparation for lectures including the need to understand the technological aspects of online teaching. This created tremendous

pressure on the teachers' mental and physical well-being. This paper attempts to analyze the physical and mental

impact which the pandemic had on the teachers as well as students.

## DIGITAL DIVIDE

The shift to online teaching was made tougher since everyone did not have the same access to the technology. The income and educational differences had significant adverse effects on the technological readiness of the facility and the students for online pedagogy. The requirement to purchase hardware and software needed for the shift was not easily possible for many of the study's participants. Some Universities started using Artificial Intelligence and other high technology [18]. Artificial Intelligence is coming to rescue of many sectors all across the world [10].

## THE LEARNING GAPS

The digital divide created a learning gap among the students from the same course. The problem was faced irrespective of socio-economic status [11]. Students who were good at the technical aspects of online learning had a better experience during the shift [14]. Also, students who had access to superior technological products were a step ahead. The plagiarism possibility in online education, in terms of educational content, from the faculty perspective and assignments and exam answers from students' perspectives, create serious concerns about the quality of education. The latest technology adoption can help the academic industry to eliminate these hurdles and enhance the quality of the content and reduce the learning gap.

## LITERATURE REVIEW

The literature reviewed on the topic has suggested that most of the previous research studies discovered that the stakeholders of the education industry have been deeply impacted by the disruption this virus caused. In the in-depth review of the literature undertaken, the authors have sought to understand the parameters connected to this topic covered by previous research. The key points from previous research identified through this literature can be found in Table 1.

**TABLE 1: SUMMARY OF THE PUBLICATIONS INCLUDED IN LITERATURE REVIEW**

	Author	Discussion Points
1.	[6]	Increased workload post-pandemic resulted in exhaustion, anxiety, uncertainty, and other health issues
2.	[14]	Need to have more clarity regarding policies and enhanced focus on communication and technical aspects of online teaching
3.	[1]	The serious requirement to assess the online pedagogical content in terms of plagiarism and quality
4.	[5]	Decreased performance standards in the STEM students due to the shift to online teaching. The negative impact on academic performance has been very severe.
5.	[15]	The pandemic had a negative impact in terms of physical and psychological health of learners and teachers.
6.	[16]	Anxiety, stress, and depression had the most common occurrences among the students since the virus has struck.
7.	[19]	Psychological distress has been observed amongst college students. Regular counselling can be used to solve the issue.
8.	[4]	The stressors impacted all types of organizations. Fear and anxiety caused due to social exclusion also were some of the prominent factors
9.	[2]	Stress and anxiety have been recurring factors among teachers.
10.	[12]	Emotional exhaustion, anxiety, stress, and depression were the main psychological and physical impacts on the teachers
11.	[11]	Physical and mental well-being were not majorly confined to any specific age, gender, and educational status.
12.	[18]	Deteriorated mental health due to absence of meeting with classmates, leaving habitual residential arrangements
13.	[13]	The virtual learning environment has had a serious mental health impact on the graduate students across universities
14.	[8]	Emotional intelligence-related interventions can be very effective in dealing with physical and mental issues because of a pandemic.
15.	[3]	Learners show a strong inclination towards offline teaching.

## METHODS

The methodology adopted for this research included a cross-sectional study of learners undertaking various university and school courses. It was conducted with an online questionnaire. This was done through stratified random sampling across various teaching departments. Demographic details and learners' educational preferences were collected through the Data Collection tool.

The tool was validated by six subject experts. Ethics clearance for this research has been waived off by the Director of Apeejay School of Management, Delhi, India.

The primary data collection to understand the viewpoint of the students and faculty was undertaken in graduate and postgraduate colleges in the four Indian states of Maharashtra, Gujarat, Andhra Pradesh, and Karnataka. There are approximately seven to eight thousand colleges in these four states which offer graduate and post-graduate courses. About more than 80,000 students' study in these colleges. Due to the pandemic, it was not feasible to collect data from all the colleges. In total 25 colleges were contacted from these four states. Hence, the method of convenience sampling was used to collect the data. A structured questionnaire was designed and distributed to 1,750 students, mostly through social media apps. 1,500 undergraduate and post-graduate students completed

the questionnaire (85.7% completion rate). From the same institutes, 715 faculty were given a questionnaire to complete about issues faced in shifting to online teaching from offline teaching due to COVID-19. 600 faculty members completed the questionnaire (83.9% completion rate). The participants in this study were encouraged to ensure correct mention of the issues they were facing after checking for the presence and continuity of symptoms due to the shift to online teaching. During the data collection, participants were encouraged to ensure correct mention of the issues faced by them and were asked to answer questions regarding physical and mental issues they were facing due to the shift to online teaching from offline teaching. They have given the choice of various indicators i.e., depression, anxiety, stress, and physical problems to choose.

The first section of the questionnaire collected data regarding age, gender, and education level. The second

section collected data regarding the preferences of the students as well as faculty regarding online and offline teaching. The later section also had questions regarding the mental and physical bearings they faced due to the shift from offline to online teaching.

The data collected from the questionnaire was cleared of all personal identifiers before being compiled and analysed to maintain the anonymity of the respondent.

## RESULTS

The analysis of the primary data collected shows that majority of the stakeholders faced multiple issues due to the shift to online teaching. The findings of the primary data collected from the questionnaire are presented in Tables 2 and 3

**TABLE 2: PARAMETER-WISE FREQUENCY AND PERCENTAGE DISTRIBUTION OF STUDENTS**

Demographic Details- Students			
Parameters		Frequency	%
<b>Gender</b>	Male	685	45.67
	Female	815	54.33
<b>Age</b>	16-20	225	15
	21-25	875	58.33
	26-30	310	20.66
	31-35	90	6
<b>Education</b>	Undergraduate	675	45
	Postgraduate	825	55
<b>Preference for Teaching</b>	Online	515	34.33
	Offline	985	65.66
<b>Mental Stress Reported in Online Teaching</b>	Anxiety/ Stress	1050	70
	Depression	540	36
<b>Physical discomfort Reported in Online Teaching</b>	Eye Strain	1255	83.66
	Physical Discomfort	1172	78.13
	Backache	910	60.66

**TABLE 3: PARAMETER-WISE FREQUENCY AND PERCENTAGE DISTRIBUTION OF FACULTY**

Demographic Details- Faculty			
Parameters		Frequency	Percentage
<b>Gender</b>	Male	215	35.33
	Female	385	66.16
<b>Age</b>	20-30	65	10.8

	30-40	210	35
	40-50	245	40.8
	50-60	80	13.33
<b>Preference for Teaching</b>	Online	160	26.67
	Offline	440	73.33
<b>Mental Stress Reported in Online Teaching</b>	Anxiety/ Stress	443	73.83
	Depression	345	57.5
<b>Physical discomfort Reported in Online Teaching</b>	Eye Strain	524	87.33
	Physical Discomfort	489	81.5
	Backache	510	85

## DISCUSSION

Very few papers in the review of literature discussed the physical impact on the stakeholders of academia. This research explored the physical impacts along with mental wellbeing impact. One more gap which was identified during the review of the literature was that only a few studies had focused on the faculty members. The researchers have tried to highlight the negative effects of the shift to online teaching, which affected the faculty members as well. In the following we have discussed our findings from the survey. Backache was one issue which has not been studied by many researchers. Most of the respondents in the survey, have mentioned being negatively affected by the shift to online teaching. The discussion is divided into two parts- physical and psychological effects.

### IMPACT OF PANDEMIC ON ACADEMIA - - PHYSICAL AND PSYCHOLOGICAL HEALTH

#### Physical Impacts

1. **Eye Strain** - One major impact of the shift to online teaching was the strain on the eyes. 87.33% faculty surveyed experienced the problem of eye strain. 83.66% students who filled the questionnaire faced the same issue. Especially teachers who were from the older age groups had difficulty working with computer screens for long periods [2]. They had problems such as headache, tired and dry eyes, and most of them who didn't need eyeglasses

earlier had to start wearing them after prolonged hours on the screen [6].

2. **Physical Discomfort** - The long hours in front of the computer screens also resulted in back and shoulder pains for the teachers and the students [15]. 81.5% faculty and 78.13% of students faced physical discomfort. Most of the teachers and students complained about feeling exhausted after a few hours of online teaching and learning [12].
3. **Backache** - 60.66% students and 85% faculty complained about backache due to online sessions. This was maybe due to sitting in one place for a long period, which most of the people were not used to.

#### Mental impacts

1. **Anxiety** – 73.83% faculty and 70.83% students faced anxiety issues due to shift to online teaching. To comprehend the technical aspects of online platforms resulted in anxiety for most of the participants [13]. This feeling was aggravated by the fear that others were doing better than them especially during exams and going ahead with the learning. Some senior faculty members also mentioned fear of death. This feeling has been reciprocated in another research also [4].
2. **Depression-** 57.5% of faculty members and 36% students felt depressed due to the absence of offline teaching. The respondents also mentioned feeling deprived and depressed due to a lack of interaction with their classmates. Most of the students were sad as they had to go to their hostel rooms in a hurry due to the lockdown. They missed the comfort of their usual

learning environment. COVID-19 has resulted in mental health issues across the industries [17].

3. **Stress-** The teachers and the students were stressed about their performance in the course and the resultant appraisal [16]. One major fear is of peers being efficient in handling technical aspects of online teaching [19]. One of the learners from the university mentioned stress due to ever-changing timetables and session slots stretching up too late at night. The general perception among professors was that the students were at home. They will be able to handle flexible timing.
4. **Emotional exhaustion-** Emotional distress and exhaustion were one more outcome of the challenges thrown by the pandemic [18]. Learners found it overwhelming to handle the extended hours and focus required to handle online learning.

## CONCLUSION

Students experienced various challenges according to the COVID 19 Pandemic, including government-imposed lockdown, physical distance limits, travel bans, and college campus closures, all of which led to isolation. However, internet-based online learning tools have greatly aided students in continuing their education from a distance. In comparison to traditional offline classroom learning, the study indicated that online learning has evolved and increased loneliness and isolation among students and instructors. Disruption in in-person communication between instructors and students leads to a sense of isolation, which leads to poor mental and physical health in pandemics. Our study has shown that most of the stakeholders prefer offline teaching compared to online teaching. This is reflected in various studies across the globe [4].

Finally, according to the findings of the study, students were extremely concerned about learning, which led to a rise in stress levels. Students' behaviour is affected as a result of their increased anxiety. Students and instructors may not be able to concentrate on teaching-learning if they are not psychologically fit or stable. During the COVID 19 pandemic, promoting students' and faculty members' psychological and physical well-being has been a primary focus for higher education universities and institutions. Most of the faculty members were in consensus that academic performance had deteriorated in the last two years post-

COVID-19. This feeling was mutual across various schools and universities around the globe [6]. Higher education institutions must identify and comprehend areas of intrusion to formulate and implement appropriate and effective health solutions.

## POLICY INTERVENTIONS

Investigators suggest that government agencies and educational institutions work together to address this issue soon. Students might be supported with internet access at a reduced cost, which would be a better solution to the problem of limited internet access. To increase the quality of online education programs, educators could be provided with training and workshops. Various strategies for health education to reduce mental stress and promote preventative behaviour are required. Finally, the researchers conclude that psychological health is equally vital as physical health.

## EMOTIONAL INTELLIGENCE TO THE RESCUE

Emotional intelligence can be a wonderful tool to ease the journey of the stakeholders to overcome the challenges thrown by the pandemic. EI has been used by multiple organizations to scale through the hurdles [8]

## IS TECHNOLOGY ADOPTION THE PANACEA?

The question which we are left with is – 'Can a better and more pervasive technology adoption be the cure for the ills which academia faced due to the virus?' Technology has been a game changer for many sectors as well as Small and medium Enterprises (SMEs) [9]. The researchers felt that the hardship faced by the stakeholders could be reduced by more training and skill enhancement [8].

## References

1. Basilaia, G. &. (2020). Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. *Pedagogical Research*, 5(4). doi:<https://doi.org/10.29333/pr/7937>
2. Christopher J. Cormier, J. M. (2021). Socially distanced teaching: The mental health impact of the COVID-19 pandemic on special education teachers. *Journal of Community Psychology*. doi:<https://doi.org/10.1002/jcop.22736>
3. Gherhes, V. S. (2021). E-learning vs. face-to-face learning: Analyzing students' preferences and behaviors. *Sustainability*, 13.
4. Hamouche, S. (2020). COVID-19 and employees' mental health: stressors, moderators and agenda for organizational actions. *Emerald Open Research*, 2(15).

5. J., S. E. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(7). doi:<https://doi.org/10.29333/ejmste/7893>
6. Kim, L. E. (2022). "My brain feels like a browser with 100 tabs open": A longitudinal study of teachers' mental health and well-being during the COVID-19 pandemic. *British Journal of Educational Psychology*, 92(1), 299-318.
7. Kumar, A., & Ayedee, N. (2021). An interconnection between COVID-19 and climate change problem. *Journal of Statistics and Management Systems*, 24(2), 281-300. doi:<https://doi.org/10.1080/09720510.2021.1875568>
8. Kumar, A. (2021). Emotional intelligence can help healthcare professionals and managers: A way deal COVID-19 pandemic. *Asian Journal of Management*, 12(4), 353-358. doi:10.52711/2321-5763.2021.00053
9. Kumar, A., & Ayedee, N. (2021). Technology Adoption: A Solution for SMEs to Overcome Problems during COVID-19. *Academy of Marketing Studies Journal*, 25(1).
10. Kumar, A., Pujari, P., & Gupta, N. (2021). Artificial Intelligence: Technology 4.0 as a solution for healthcare workers during COVID-19 pandemic. 24(1),. *Acta Universitatis Bohemiae*
11. Liu, C., McCabe, M., Dawson, A., Cyrzon, C., Shankar, S., Gerges, N., . . . Cornish, K. (2021). Identifying Predictors of University Students' Wellbeing. *International Journal of Environmental Research and Public Health*, 18(6730). doi:<https://doi.org/10.3390/ijerph18136730>
12. Lizana, P., Vega-Fernandez, G., Gomez-Bruton, A., Leyton, B., & Lera, L. (2021). Impact of the COVID-19 Pandemic on Teacher Quality of Life: *International Journal of Environmental Research and Public Health*. doi:<https://doi.org/10.3390/ijerph18073764>
13. Nahal Salimi, B. G. (2021). College Students Mental Health Challenges: Concerns and Considerations in the COVID-19 Pandemic. *Journal of College Student Psychotherapy*. doi:<http://dx.doi.org/10.1080/87568225.2021.1890298>
14. Nambiar, D. (2020). The impact of online learning during COVID19: students' and teachers' perspectives. *International Journal of Indian Psychology*, 8(2), 783-793. DOI:10.25215/0802.094
15. P, S. (2020). Closure of Universities Due to Coronavirus Disease 2019 (COVID-19): Impact on Education and Mental Health of Students and Academic Staff. *Cureus*, 12(4). DOI:10.7759/cureus.7541
16. Paula Odriozola-González, Á. P.-G.-G. (2020). Psychological effects of the COVID-19 outbreak and lockdown among students and workers of a Spanish university. *Psychiatry Research*, 290(113108). doi:<https://doi.org/10.1016/j.psychres.2020.113108>
17. Pujari, P. P. (2021). Impact of covid-19 on the mental health of healthcare workers: Predisposing factors, prevalence and supportive strategies. *Asia Pacific Journal of Health Management*, 16(4), 260-265. doi:<https://doi.org/10.24083/apjhm.v16i4.1303>
18. Wiecek, T. K. (2021). Class of 2020 in Poland: Students' mental health during the COVID-19 outbreak in an academic setting. *International journal of environmental research and public health*, 18(6). doi:<https://doi.org/10.3390/ijerph18062884>
19. [Y. Zhai, X. D. (2020). Addressing collegiate mental health amid COVID-19 pandemic. *Psychiatry Res.*, 288. doi:<http://https://doi.org/10.1016/j.psychres.2020.113003>