

## Impact of Online Education in the Second Year of Pandemic: Stress and Challenges Faced by Adolescents

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### ABSTRACT

The impact of the pandemic has been tremendous on all people, more so for students as studies have shown that they have experienced intense stress during the Covid-19 pandemic. School closures, lack of socialisation, uncertainty, fear of contracting the infection are all contributing factors. The aim of the current study was to determine the students' stress levels as a result of online education during the second year of pandemic as well as the impact that online education has had on them. This study adopted a mixed method approach wherein The Educational Stress Scale for Adolescents by Sun et al. (2011) was used to determine the educational stress levels of students and two open ended questions were formulated to understand the impact of online learning. Data was collected from students aged 16-18 years studying in classes 10th -12th from private as well as government schools in urban population from different cities. Descriptive analysis of the quantitative data was done to calculate the frequency and percentage of stress levels of the participants, which revealed that majority of the adolescents were moderately stressed. Thematic analysis was used to analyse the qualitative data and the themes identified were impact on learning, consequences on physical health, mental health issues, technological difficulties, environmental distractions, loss of social interaction and positive experiences of online classes.

**Keywords:** *Online Learning, Pandemic, Adolescents, School, Stress*

The growth of online education brought on by COVID-19 has resulted in a significant shift in students' lifestyles. As a consequence of rapid shift in schooling from typical in-school study to online education, adolescents have experienced a considerable setback. Although several studies have indicated that certain students have responded favourably to online learning and are thus strongly motivated to participate in the learning process (Friedman, 2020; Rajab et al., 2020), some other studies have found certain problems that students confront while learning online that might be demotivating. Misunderstanding task instructions, inadequate time to complete tasks (Friedman, 2020), inability to participate effectively in group work activities (Gillett-Swan, 2017), student support and academic confidence (Anderson, 2008), information exchange, time management, utilization of online learning tools, pandemic-related anxiety and stress (Rajab

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Received: October 04, 2022; Revision Received: April 15, 2023; Accepted: April 18, 2023

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et al., 2020), and fear of underachievement (Chandra, 2020) are some of these challenges. The literature also identifies flaws such as the inadequacy of online-teaching infrastructures, instructors' lack of familiarity with new technologies, the knowledge gap, the complex home environment, and so on (Ali, 2018). Moreover, when studying at home, adolescents face a plethora of distractions. For example, not everyone can find appropriate settings for home learning, and studying may be limited by inadequate equipment and unstable connections (Zhang et al., 2020). Considering these disruptions, much speculation has centred on the pandemic's influence on academic performance, social relationships, and mental health and well-being among children and adolescents (Racine et al., 2020). It is anticipated that these factors would lead to a significant increase in mental health issues within this demographic.

For students in higher education, one particular area of concern is academic stress. While stress is a part of adolescent development, however, during the COVID-19 pandemic, adolescents faced situations that may have amplified these normally occurring stressors, such as lost educational time, limited access to peers, and disturbance of daily routines (Fegert et al., 2020). There is ample data to show that severe and long-term academic-related stress has a negative impact on children's and teenagers' academic achievement, mental health, and well-being. Academic stress has been linked to lower academic motivation and academic disengagement in students (Liu & Lu, 2011). This, in turn, can lead to even higher stress levels and make adolescents confined in a vicious loop. Stress and its related mental health concerns can continue into adulthood if not managed effectively, increasing the likelihood of long-term illness later in life.

It is with this background that the goal of the present study was to understand the challenges that adolescents have faced due to online education along with the level of academic stress experienced by them during the second year of the pandemic.

### **METHODOLOGY**

#### *Objectives*

1. To measure educational stress experienced by adolescents during the second year of the pandemic.
2. To understand the challenges and assess the impact of online education on adolescents' learning during the second year of the pandemic.

#### *Sample*

The sample of the current study consisted of adolescents aged 16-18 years studying in 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades from private as well as government schools in urban population from different cities. A total of 103 responses (male=38, female=64, other=1) were collected through convenient sampling.

#### *Design*

This study utilised a mixed method research design to enable an in-depth understanding of the challenges that students had to face due to online education and how it impacted them. The aim was to determine the level of educational stress among adolescents and the impact online learning had on them during the second year of pandemic. Quantitative data was collected using a standardised tool measuring academic stress and qualitative data was collected through two open ended questions. A google form was created and circulated to collect the responses.

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### *Procedure*

At the very beginning, review of literature was done to arrive at a pertinent research question. Thereafter, relevant tool was found to assess the academic stress of adolescents and two open ended questions were formulated to assess the challenges of online education. A google form was created to collect data from adolescents of ages 16-18 years studying in private as well as government schools of urban areas in different cities. The google form consisted of both the quantitative tool as well as the subjective questions, and was circulated amongst the students through social media and email. It also consisted of a brief introduction along with debriefing regarding the purpose of the research. Confidentiality was ensured and informed consent was taken from the participants. The data was transferred to an excel sheet after data collection for scoring. Quantitative analysis was done using SPSS and qualitative analysis was done through thematic analysis.

### *Tool*

The Educational Stress Scale for Adolescents by Sun et al., (2010) was used to collect quantitative data in the current study. The tool consists of 16 items, divided into 5 factors namely pressure from study, worry about grades, despondency, self-expectation and workload. On a 5-point Likert scale ranging from 1 to 5, participants were asked to rate each statement from 1 (Strongly disagree) to 5 (Strongly agree), with higher score indicating high level of stress. Interpretation of the scale (Sarma and Bordoloi, 2018):

- Low level of stress:  $< \text{Mean} - \text{Standard deviation}$
- Moderate level of stress:  $(\text{Mean} - \text{Standard deviation})$  to  $(\text{Mean} + \text{Standard deviation})$
- High level of stress:  $> \text{Mean} + \text{Standard deviation}$

Questions regarding online learning were formulated backed by prior review of literature. The format of the questions was kept open ended to encourage flow of ideas. The following two questions were aimed at finding out the challenges that the students faced during their online learning:

1. How do you think the shift to online schooling has impacted your learning?
2. What do you feel are the challenges of studying through online classes?

### *Data analysis*

Descriptive analysis of the quantitative data was done to calculate the frequency and percentage of stress levels of the participants. The data was analysed using SPSS 21.0.

After the data collection, the responses to open-ended questions were thematically analysed. The process of thematic analysis by Braun and Clarke (2006) was utilised. Initial codes were generated, from which themes were formed and a thematic map linking both the questions was formulated.

## **RESULTS**

This study was conducted with the objective to understand the challenges that adolescents have faced due to the shift in online education along with the academic stress they experienced during the second year of the pandemic. The results were analysed both quantitatively and qualitatively.

Table 1 demonstrates the descriptive analysis showing frequencies and percentages of stress among the sample. It was found that majority of the sample, i.e., 68%, is moderately stressed

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(n=70), while 17% of the sample had high stress (n=18) and 15% of the sample was low on stress level (n=15).

**Table 1. Results showing distribution of the sample according to the level of educational stress**

| Level of Educational Stress | Frequency (f) | Percentage (%) |
|-----------------------------|---------------|----------------|
| Low Level of Stress         | 15            | 15%            |
| Moderate Level of Stress    | 70            | 68%            |
| High Level of Stress        | 18            | 17%            |
| Total                       | 103           | 100            |

The qualitative analysis produced seven key themes, which are discussed below:

### Impact on Learning

This theme is defined by consequence brought about by online education on the learning habit and style of school students. Almost all participants reported there has been a substantial impact on their learning habits, such as a learning gap, a reduction in capacity to understand, a decrease in attention span and writing speed. The range of sub-themes and codes within this theme demonstrates that the shift to online education was not smooth for the students, who preferred conventional classroom study. Illustrative examples appear below:

One participant stated, *“I think the shift to online school has had a considerable impact on the way i used to learn, I think learning was much more fun 3 years back when we used to go to REAL classes moreover being motivated to attend online classes is also a big challenge these days”*. On similar lines, another participant said that, *“For me .. it has reduced my learning power. I believe when that offline school is a better option”*.

### Consequences on Physical Health

Online education has left an impact on students’ physical health. The majority of participants stated that when education shifted from offline to online, screen time increased, resulting in headaches and even migraines for some, as well as eye strain. Apart from that, participants stated that physical activity decreased significantly during the pandemic, that they became lazy, and that poor posture was common among students. Some of the participant verbatims are written below:

*“It started affected physical health by sitting all the time on a couch and attending the classes also learning is also difficult through this mean.”*

*“Online classes particularly affected my eyes and ears the most. I had to go through migraine for quite some time.”*

### Mental Health Issues

There has been an impact on the mental health of all individuals due to the pandemic and lockdowns. The mental health issues reported by participants in this study were related to loss of motivation, concentration, focus, discipline and confidence. For example, a participant stated *“It has been tough concentrating in classes because of online schooling. I have missed a lot more days than I used to”*. A rise in academic stress was also reported.

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This was related to being pressurised by the teachers and the school not being supportive. A participant stated *“In my viewpoint, teachers are putting immense pressure on the students, actually they are expecting a lot from us, but they are not understanding that there is learning gap, that’s why we are not able to perform well. We were not habitual to sit in front of screen for long hours”*. Some students also reported experiencing mental health issues during the pandemic, which made attending online classes very exhausting. One of the participants stated, *“The most difficult challenge for me is mental health; got worse while the pandemic so taking online classes are very exhausting for me”*.

### Technological Difficulties

This theme illustrates the technological challenges that are faced while using online platforms. This is especially true in the case of online classes, as there may be network issues, issues with the platform on which the class is held, issues with the device, power outages, and a lack of technological understanding. Participants reported that due to such technological errors, they sometimes missed classes and many classes were also cancelled. Some of the verbatims are mentioned below:

*“Online classes have impacted so much part of my studies because due to network issues & improper working of wifi or internet most of the times we get unable to take classes which impact our attendance as well as studies.”*

*“Mostly there are many network issues and many can't afford mobile / laptops because of financial reasons so it becomes difficult for them to study.”*

### Environmental Distractions

This theme is related to the environment in which students had to study during the period of school closure. The sub-themes included increased use of social media, distractions at home while attending classes, inability to take classes seriously while studying from home, no one to keep a check during online classes, loss of routine and a disrupted daily schedule. Participants reported that *“Its hard to stay focused during online classes and there is no environment perfect for studying than a classroom”*, *“Learning classroom with learning environment and students is much different than studying in just a laptop screen”*, *“As the schools are closed the routine has come to end as we woke up late in the morning and also the seriousness of the studies has decreased”*.

### Loss of Social Interaction

Interacting with peers and teachers in school was definitely one of the aspects which was completely lost during online classes. A participant stated that *“Online schooling has done more harm than good. The interaction between peers and teaching faculty and school environment was lacking.”* Another stated, *“The shift to online schooling has impacted my learning negatively due to the lack of physical interaction and communication with the teachers.”*. There was a lack of communication which resulted in isolation. Students were also unable to ask questions and doubts in class. A participant stated, *“Not able to ask any questions”*.

### Positive Experience of Online Classes

Some positive experiences and views on online education were also shared by quite a few participants. Participants reported that online classes were a new experience for them, enhanced their technical skills and helped them be in their comfort zone. They were able to attend classes from anywhere, there was no pressure of submissions, online classes helped them save time and helped in focusing better, and there was no distraction from classmates

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as would usually happen in a traditional classroom setting. Participant verbatims are mentioned below:

*“My experience of online education was extraordinary and now i prefer Online classes over offline, I could attend classes from anywhere that's the best thing about it. Looking at online videos/demonstrations can help in better understanding and even teachers can teacher from any part of the world.”*

*“I am enjoying online study alot because we don't need to get up early in the morning, we don't have any pressure of making notebooks, project file,etc. We can directly focus on our competitive exam ...”*

*“Online schooling helped me to discover new things over the internet which I was unaware of. It enhanced my technical skills and made me a better technophile.”*

### DISCUSSION

The abrupt grasp of the covid-19 pandemic on the world affected everyone, especially school children who felt out of place due to shifted learning. Previous research has revealed that the pandemic has adversely affected the education and learning of students, and has had a negative impact on student achievement (Hammerstein et al., 2021). This mixed method study has presented an in-depth understanding regarding issues that the school students faced due to online classes during the covid-19 pandemic and how it had a lasting impact on their physical and mental health as well as learning abilities.

Quantitative findings of the present study revealed that the majority of the sample falls into the moderate range of educational stress. The sudden shift from regular schooling to online learning was stressful for students. Stress tends to be a part of adolescents' daily life. However, during the pandemic, they went through certain situations that may have magnified these normally occurring stressors such as disturbance in their daily routine, learning gap in their education or access to their peers. Similar findings were reported in a study conducted in India by Ray, Goswami & Kumar (2022) during the pandemic, where the results showed that majority of the students were moderately stressed.

The qualitative analysis gives these results more context by elaborating on the difficulties students faced as a result of the transition to online learning, which may have resulted in increased stress levels. Participants in this research reported that there has been an adverse impact on their learning because of online classes. Students felt that the conventional way of studying was better and that their learning power had reduced because of the shift to online classes. A study by Chakraborty, Mittal et al. (2020) found out that students believe that in a physical classroom, they can connect better with teachers. Participants also reported developing physical and mental health issues. Physical difficulties such as headaches and migraines, bad posture, as well as poor eyesight, were caused by a lack of physical activity and gazing at their computer screens all day. A study by Chu and Li (2022) reported that participants were significantly physically inactive and only engaged in physical activity for less than half of the time that they previously spent during the in-class learning period. Long periods of time spent in front of a screen resulted in mental exhaustion and burnout. Participants in this study reported a loss of motivation for online school classes, as well as a lack of focus and discipline. Another effect of online classes that participants mentioned was an increase in academic stress. This could be due to a variety of factors, including a lack of access to the internet and adequate gadgets, a loss of interest in studies, failure to complete schoolwork on time, and less interactions with peers and teachers.

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Moreover, participants reported that their studies were affected during the pandemic due to the structural limitations of studying online, such as technological difficulties and lacking the school environment. Problems with internet connections and constant network and audio - visual issues somewhat created a gap and disrupted the flow of learning. Students have cited that because of the ongoing pandemic, there was a lack of privacy as all the family members were at home which made the home environment an uncomfortable place of study, making students demotivated to focus on their online classes. Students also felt that their daily routine was disrupted due to online classes as there was an abrupt change in their schedule and school timings as well as the lack of in-person teaching. Studying in the comfort of one's home can lead to feelings of lethargy and relaxation which can be attributed to distraction and loss of motivation.

Lastly, participants also reported that there has been a significant lack of communication during this period as interaction with peers and teachers was lost. Academic social interactions help students feel like they belong, and if they don't feel like they belong, they may be less motivated to complete academic assignments (Yeager et al., 2013). According to Wallace (2003), students' satisfaction, learning, and performance in online classes are influenced by social presence and the ability to engage in discussions with teachers and other students.

Although the data points towards a largely negative impact of online learning on students, many dissenting views of positive experiences also emerged. Students felt enthusiastic by the fact that online classes have a higher feasibility and can be attended from anywhere. They felt that they were able to understand the concepts better without the additional pressure of making notebooks as they can now focus solely on learning the concepts. Studies have also shown that due to the lockdown in the aftermath of the COVID-19 pandemic, the majority of responders opted online classes to keep up with the curriculum (Muthuprasad, & Aiswarya, 2021). Physical school environment tends to be stressful for quite a lot of students as they might feel the pressure of keeping up with everything a little too far reaching for their abilities and online learning gave them the platform and comfort to discover their solace without that pressure. Students felt that this was a new experience as they can now attend classes in their comfort zone while also had more time to gain new knowledge, sharpen their technical skills and face less distractions than a physical classroom.

### **CONCLUSION**

The findings of the current study revealed some insights into how well received online learning during the pandemic was by adolescents. Online learning failed to make a positive impact on a large population of students as a significant number of participants reported moderate stress and a variety of physical and mental health issues, as well as a significant influence on their learning, among other issues.

There is an ever-growing need for a standardised hybrid teaching approach which will enable and empower the students to bring themselves up to date with everything they might have missed out on due to the pandemic as well create such a learning environment that allows them to grow and learn at their own pace. It should also be designed in such a way to bring the students of different backgrounds on par with each other and to bring about a model of holistic learning amongst their peer group.

## REFERENCES

- Ali, S., Uppal, M. A., & Gulliver, S. R. (2018). A conceptual framework highlighting e-learning implementation barriers. *Information Technology & People*, 31(1), 156–180. <https://doi.org/10.1108/itp-10-2016-0246>
- Anderson, A. (2008). Seven Major Challenges for E-Learning in Developing Countries: Case Study eBIT, Sri Lanka. *International Journal of Education and Development Using ICT*, 4(3), 45–62.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Chakraborty, P., Mittal, P., Gupta, M. S., Yadav, S., & Arora, A. (2020). Opinion of students on online education during the COVID-19 pandemic. *Human Behaviour and Emerging Technologies*, 3(3), 357–365. <https://doi.org/10.1002/hbe2.240>
- Chandra, Y. (2020). Online education during COVID-19: Perception of academic stress and emotional intelligence coping strategies among college students. *Asian Education and Development Studies*, 10(2), 229–238. <https://doi.org/10.1108/aeds-05-2020-0097>
- Chu, Y.-H., & Li, Y.-C. (2022). The impact of online learning on physical and mental health in university students during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(5), 2966–2976. <https://doi.org/10.3390/ijerph19052966>
- Clabaugh, A., Duque, J. F., & Fields, L. J. (2021). Academic stress and emotional well-being in United States college students following onset of the COVID-19 pandemic. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.628787>
- Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the coronavirus 2019 (COVID-19) pandemic for Child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health*, 14(1). <https://doi.org/10.1186/s13034-020-00329-3>
- Friedman, C. (2020). Students' Major Online Learning Challenges Amid Covid-19 Pandemic. *Journal of Pedagogical Sociology and Psychology*.
- Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. *Journal of Learning Design*, 10(1), 20. <https://doi.org/10.5204/jld.v9i3.293>
- Hammerstein, S., König, C., Dreisoerner, T., & Frey, A. (2021). Effects of covid-19-related school closures on Student Achievement—a systematic review. *Frontiers in Psychology*, 12. <https://doi.org/10.31234/osf.io/mcnvk>
- Liu, Y., & Lu, Z. (2011). The Chinese high school student's stress in the school and academic achievement. *Educational Psychology*, 31(1), 27–35. <https://doi.org/10.1080/01443410.2010.513959>
- Muthuprasad, T., Aiswarya, S., Aditya, K. S., & Jha, G. K. (2021). Students' perception and preference for online education in India during covid -19 pandemic. *Social Sciences & Humanities Open*, 3(1). <https://doi.org/10.1016/j.ssaho.2020.100101>
- Racine, N., Korczak, D. J., & Madigan, S. (2020). Evidence suggests children are being left behind in COVID-19 Mental Health Research. *European Child & Adolescent Psychiatry*, 1(2). <https://doi.org/10.1007/s00787-020-01672-8>
- Rajab, M. H., Gazal, A. M., & Alkattan, K. (2020). Challenges to online medical education during the COVID-19 pandemic. *Cureus*, 12(17). <https://doi.org/10.7759/cureus.8966>



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- Ray, S., Goswami, V., & Kumar, C. M. (2022). Stress-the hidden pandemic for school children and adolescents in India during COVID-19 ERA. *Current Psychology*. <https://doi.org/10.1007/s12144-022-02827-3>
- Sarma, H., & Bordoloi, B. (2018). A co relational study on academic stress and self-esteem of students from Higher Secondary Schools of Guwahati City. *Indian Journal of Psychiatric Nursing*, 15(2), 4–12. <https://doi.org/10.4103/2231-1505.262449>
- Sun, J., Dunne, M. P., Hou, X.-yu, & Xu, A.-qiang. (2011). Educational stress scale for adolescents. *Journal of Psychoeducational Assessment*, 29(6), 534–546. <https://doi.org/10.1177/0734282910394976>
- Wallace, Raven M. (2003). Online learning in higher education: A review of research on interactions among teachers and students. *Education, Communication & Information*, 3(2), 241–280. <https://doi.org/10.1080/14636310303143>
- Yeager, D., Walton, G., & Cohen, G. L. (2013). Addressing achievement gaps with psychological interventions. *Phi Delta Kappan*, 94(5), 62–65. <https://doi.org/10.1177/003172171309400514>
- Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 Outbreak. *Journal of Risk and Financial Management*, 13(3), 55. <https://doi.org/10.3390/jrfm13030055>

### **Acknowledgement**

The authors of this study would like to thank everyone who participated in the study.

### **Conflict of Interest**

The authors declared no conflict of interest.

**How to cite this article:** Joshi, K. & Sardana, S. (2023). Impact of Online Education in the Second Year of Pandemic: Stress and Challenges Faced by Adolescents. *International Journal of Indian Psychology*, 11(2), 164-172. DIP:18.01.013.20231102, DOI:10.25215/1102.013