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Socio-economic and educational implications of COVID-19: Evidence from the higher education sector in a developing country

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Abstract: The impact of the coronavirus outbreak was seen all over the world in all sectors. In the case of Bangladesh, it was not free of threats. Like all other sectors, the economic, social, and educational sectors were under serious threat. This study examined the effects of COVID-19 on the lives of Bangladeshi students, with a particular focus on their idealized portrayals of plans, daily routines, social interactions, and mental well-being. This research also investigated the influence of COVID-19 on education, social life, and other sectors and how the government was dealing with this unprecedented situation and these elevation challenges. A mixed-methods approach was adopted for this research. A total of 90 students from Bangladeshi higher educational institutions were taken as a sample size using the random sampling method. SPSS software was used for data analysis. The study's quantitative results showed that Bangladeshi students faced challenges related to teaching, learning, and social distancing during the COVID-19 pandemic. Additionally, the study revealed that the pandemic adversely affected higher education in Bangladesh. Rebels and concerned citizens from all parts of the state must work together to move forward. COVID-19 has had a natural effect on education and almost every other field. The need for social distancing has pushed the education system to change because of social distancing. Many educational institutions worldwide have shuttered their campuses and relocated their teaching and learning online.

Keywords: COVID-19; novel coronavirus; lockdown; impact; higher education

1. Introduction

The global COVID-19 pandemic has had a significant impact on many aspects of society, instigating a series of socio-economic and educational repercussions. This study investigates the precise ramifications in the higher education industry of a developing nation, with the objective of offering a comprehensive comprehension of the obstacles and prospects that have emerged in this pivotal sphere (Islam et al., 2020; Khan et al., 2021).

COVID-19 emerged in Wuhan, China, on December 31, 2019, and was classified as a new coronavirus by the World Health Organization (WHO) in 2019. It belongs to the coronavirus family, and its latest official name is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease is caused by various animal and human factors (Al Masud et al., 2023; Khan et al., 2021; WHO, 2020). The World Health Organization declared COVID-19 a global emergency on January 30, and also

declared pandemic in March due to its widespread impact 2020 (Hossain et al., 2023; Nath et al., 2020). Since March 2022, Covid-19 have killed 6,456,988 and infected 596,208,869 people (WHO, 2022). Then the COVID-19 has become a worldwide issue (Shammi et al., 2020), and IEDCR reported the first confirmed coronavirus case in Bangladesh on March 8, 2020 (IEDCR, 2022). Between March 8 and March 22, 2022, the DGHS confirmed 2,009,129 cases, 29,314 deaths, and 1,951,737 vaccination doses (Barua et al., 2022; Gazi et al., 2023).

Bangladesh imposed multiple shutdowns ranging from 10 to 30 days to manage the worsening coronavirus situation in the country, as announced by the government (Begum et al., 2020; Khan et al., 2021). Bangladesh, a low-income, densely populated country, is battling to contain the disease (Anwar, et al., 2020). COVID-19 has affected every sector of society (Qiana and Fan, 2020). The pandemic also affected the country's education sector. Since March 17, 2020, all schools have been closed. The education minister declared an early vacation for all educational institutions (schools, colleges, and universities) until April 4, 2020, but it was later extended until April 11, 2020, due to a surge in COVID-19 cases (Begum et al., 2020; Hossain et al., 2023; Mheen, 2020). There are 36 million non-students. COVID-19 halted the academic curriculum. In our country, many students need more Internet access, making online lessons challenging. Online lessons are challenging, say pupils. Teachers need help taking classes since they use a traditional method (Islam et al., 2021; Nabi et al., 2022). Inadequate technological infrastructure poses a significant challenge for students when accessing online classes. For instance, some students residing in rural areas experience slow internet speeds, which impede their ability to participate effectively in virtual learning. It helps university teachers make a good student study schedule (Islam, 2020; Joshi, 2022). The global health crisis has significantly disrupted conventional approaches to delivering education, necessitating an immediate shift to remote learning and an unprecedented implementation of digital technologies (Begum et al., 2020). The sudden transition has not only brought to light pre-existing inequalities in technology and resource accessibility, but has also incited a reassessment of the fundamental principles underlying pedagogy in higher education (Saha and Kumar, 2021). Given the current state of affairs in academia, it is crucial to examine the strategies employed by institutions, students, and instructors to navigate this unexplored domain.

Furthermore, educational institutions and students have been profoundly impacted by the global pandemic's socioeconomic consequences, which include increased financial strain, employment losses, and economic recessions (Bhuiyan et al., 2020; Gazi et al., 2022). The objective of this study is to elucidate the intricate and interconnected nature of these difficulties, providing insight into the diverse consequences of the COVID-19 pandemic on tertiary education, specifically within the framework of an emerging country.

In Bangladesh, COVID-19 is part of the global pandemic caused by the coronavirus responsible for severe acute respiratory syndrome. As reported by the DGHS press release, from March 8 to March 16, 2022, there were 1,950,846 confirmed cases, 29,127 associated deaths, and 1,872,845 new cases (WHO, 2022), as shown in **Figure 1**.

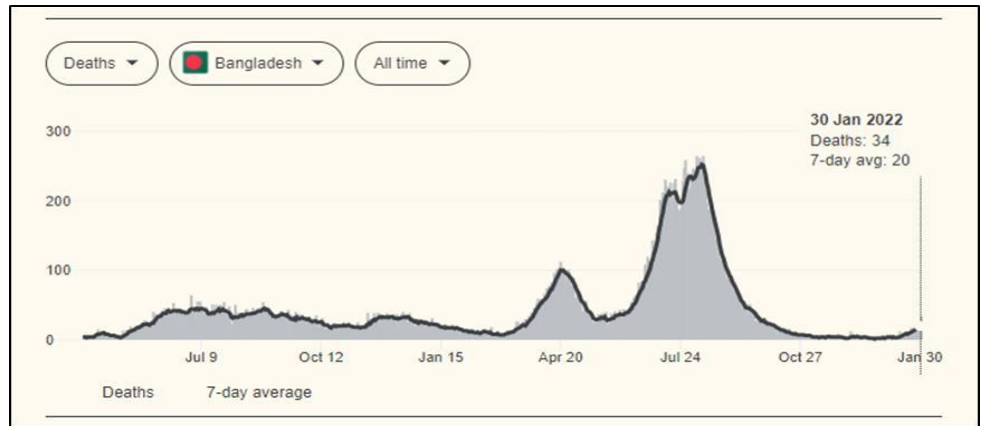


Figure 1. Number of total deaths by COVID-19 pandemic in Bangladesh 30 January 2022.

Source: Corona.gov.bd, 2022.

SARS-CoV-2 caused a significant global impact, with over 473 million confirmed cases, 6 million deaths, and 409 million recoveries across multiple countries, as depicted in **Figure 2** (Worldmeter, 2022). The WHO classified the outbreak as a pandemic in March 2020. COVID-19 affected 223 countries and regions, including two international transmissions.

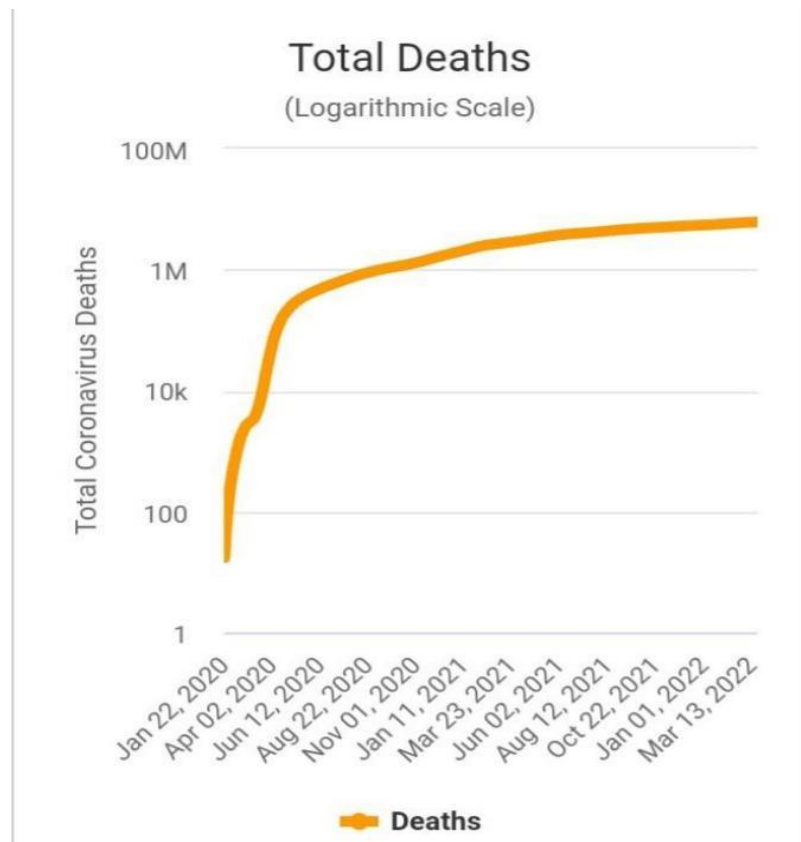


Figure 2. COVID-19 total death in the world up to March 22, 2022.

Source: Worldmeter, 2022.

Table 1. COVID-19 deaths, cases and recovered in the World and Bangladesh 22 March 2022.

Country name	Total cases	Total deaths
World	596,208,869	6,456,988
USA	81,448,946	998,880
India	43,010,971	516,574
Brazil	29,641,848	657,363
France	24,161,339	141,085
UK	20,413,731	163,929
Germany	19,017,693	127,739
Russia	17,637,795	365,373
Turkey	14,708,850	97,347
Italy	13,992,092	158,101
Bangladesh	2,009,129	29,314

Source: Worldmeter, 2022.

Table 1 shows COVID-19 deaths, cases, and Bangladesh. On March 22, 2022, there were 473,327,689 cases, 6,108,251 fatalities, 410,050,084 recovered and 11,712,423,741 vaccination doses given (Worldmeter, 2022). COVID-19 has the potential to result in the loss of school admittance for 1.3 billion pupils from 186 nations, Bangladesh exhibits similarities. Bangladesh's government mandated a 10-day holiday from March 26 to April 4, resulting in the suspension of on-campus academic activities and students being unable to attend regular classes. Several higher education companies have moved their instructional operations online after recovering from the outbreak (Kantamaneni et al., 2022). The mental well-being of certain adolescents is negatively impacted by their excessive engagement with social media (Chowdhury et al., 2022; Dundar and Gul, 2022). Total 28.5% of college and university students expressed anxiety, 33.3% reported anxiety, and 46.92% reported mild to acute stress (Sonmez, 2022). We know of no experimental investigations. This online study assessed the social and mental health challenges faced by Bangladeshi students on a daily basis. The authors employed the Chi-square test to analyze the participants' spiritual health, comprising anxiety and depression (Banna et al., 2021; Gazi et al., 2022).

We also looked at schooling, social life, everyday activities, and future mental health disorders like sorrow and depression. Our study evaluates Bangladeshi students' mental health based on evidence-based repercussions. This study will focus on a topic kids' encounter in all aspects of life. Guidelines informed by Piya et al. (2022) and NOOR (2020) can be implemented by the government to aid students in the aftermath of COVID-19 and to equip them for conditions post- pandemic. Most schools began offering online lessons on Zoom, Google Meet, Google Classroom, YouTube, and Facebook (Chanda et al., 2022; Gazi et al., 2022). Before vaccinations, lockdowns and other measures were the only effective ways to control the virus's spread and consequences. How rapidly they were used in different countries affected prevalence and death rates (Assis de Salles, 2021; Xia et al., 2021). Genetic interaction has become significant in understanding diseases since the technological revolution.

Translational genomics uses individual genetic diversity for precise diagnosis and individualized therapy (Akter et al., 2022; Kaur et al., 2020). Despite the closure of universities, doctors and pharmacists must be prepared to tackle pandemic-related difficulties across nations. Given concerns about the pandemic's escalating rates of non-communicable illnesses, indisposition, and mortality, this also involves ensuring patients have great prescription tablets and know how to take them (Chowdhury et al., 2022; Nabi et al., 2021).

Individuals cannot reduce national consequences (Begum et al., 2020), COVID-19 effects on Bangladeshi education and society that have been studied before. Most qualitative research on COVID-19's impact on higher education proved significantly. To investigate the impacts of COVID-19 on education and social life of students using advanced education and socio-behavioral methods (Khan et al., 2021; Islam et al., 2020). This study will fill a gap by looking at the real-world effects of COVID-19 on Bangladesh's education and society. To fill a gap in research, Sakamoto et al. (2020) used cutting-edge technology to find a link between education, economic growth, and policy. The study's research questions are formulated to address the existing research gap: RQ-1: What are the influences of COVID-19 on higher education in Bangladesh? RQ-2: What is the impression of COVID-19 on the Bangladeshi education sector?

Through an analysis of the convergence of socio-economic variables and educational intricacies, this research endeavor seeks to provide significant contributions that may guide policy formulations, institutional approaches, and pedagogical methodologies aimed at alleviating the repercussions of the pandemic and cultivating fortitude in the tertiary education domain of the selected developing nation.

2. Literature review

The COVID-19 pandemic has had a profound global impact on numerous sectors, including higher education in developing nations, which has encountered distinctive socio-economic and educational obstacles. Academics have emphasized the importance of investigating the complex ramifications of the pandemic on education, specifically in areas where socioeconomic inequalities were already pronounced.

The end of the 2019 worldwide coronavirus displeasure pandemic includes COVID-19 from Bangladesh. In March 2020, this virus will reach Bangladesh. Bangladesh is at high risk of COVID-19 spread and pandemic losses (Mohiuddin, 2021; Unni, 2020). The present investigation assesses the repercussions of the COVID-19 pandemic in higher education. The government declared a "lockdown" from March 23 to March 30. Since May, Bangladesh has still been keeping up with spatial separating rules and taking after the World Health Organization's suggestions, such as mask-wearing protocol though, for financial success, lockdown measures have been facilitated (Ahmed et al., 2020; Al Masud et al., 2021; Cao et al., 2020). Over the long run, pandemics can cause imbalances in civilizations and societies. Given the heightened susceptibility of individuals with non-communicable diseases (NCDs) to severe COVID-19-related morbidity and mortality, this facet of the pandemic represents a significant challenge in educational sector.

Chanda et al. (2022) conducted research that highlighted the significant transition to remote learning as a result of closure measures, thereby emphasizing the widespread

digital divide in developing nations. The socio-economic consequences are readily apparent, given that students hailing from disadvantaged backgrounds might encounter obstacles in effectively engaging in online education due to limited access to critical technology and internet connectivity (Chanda et al., 2022; Hossain et al., 2021). Furthermore, pre-existing educational disparities have been further intensified by the closure of academic establishments, which has impacted students from low-income communities disproportionately (Qiana and Fan, 2020).

The ramifications of the COVID-19 pandemic on the higher education sector in developing nations have been even more onerous (Shammi et al., 2020). Declines in government support, funding limitations, and the number of international students enrolled have all contributed to apprehensions regarding the financial viability of academic establishments (UNESCO, 2020). These obstacles possess ramifications for the caliber and availability of education, which may ultimately exacerbate socioeconomic disparities (Al Masud et al., 2021; Kumar and Pinky, 2020).

Bangladesh is the 17th most troubled country in the world. Despite the government's efforts to contain the virus through various measures such as territorial or national isolation, travel restrictions, risk management protocols in the workplace, event cancellations and delays, curfews, border lockdowns, and screening at airports and train stations, among others (Begum et al., 2020; Saha and Kumar, 2021). Bangladesh's three most important economic sectors are agriculture, manufacturing, and services. The imperative for social distancing induced by the COVID-19 pandemic has instigated modifications in the education realm (Bhuiyan et al., 2020). Nonetheless, the inquiry has revealed a deleterious influence of the COVID-19 pandemic on the tertiary education system in Bangladesh. Many educational institutions worldwide have shuttered their campuses and relocated their teaching and studying online (Amin et al., 2020; Kumar and Pinky, 2020; Nath et al., 2020).

A study by Mohiuddin (2021) and Unni (2020) in Bangladesh revealed that English-language students have favorable attitudes towards online learning, considering it a highly beneficial approach, particularly in the context of the COVID-19 pandemic. According to Krishnan et al. (2023) and Kumar and Pinky (2020), e-learning is perceived by students as a means of enhancing teacher-student interaction, facilitating prompt feedback delivery, and enabling communication with teachers beyond office hours through mobile devices. Furthermore, using social media platforms has been reported to reinforce communication between teachers and students. To concentrate on literate research, a systematic review with exclusion and inclusion criteria was chosen for this study. A substantial number of COVID-19-related technique leaflets have been considered for this inquiry (Mohiuddin, 2021). Also, a lack of education and hard times financially has made it more likely that violence based on gender will happen (Kumar and Pinky, 2020). Chanda et al. (2022) conducted a study that revealed the limited benefits of online education in small nations like Pakistan, where students often face internet restrictions and connectivity issues. Khan et al. (2021) highlighted technical and financial obstacles contributing to inconsistent internet access for students in developing countries, including Pakistan and India. In addition, there is a significant correlation between mental health and academic achievement, with better mental health leading to greater academic success. The impact of COVID-19 on students' mental health has also been investigated. Javed

et al. (2022) explored the relationship between social media usage and emotional well-being among students in another study.

A comprehensive survey was conducted to investigate how students worldwide cope with the unforeseen and unparalleled consequences of the COVID-19 pandemic, including the present and future impact on their lives (Qiana and Fan, 2020). During the pandemic, the foremost concern of students pertains to their future employment (Mohiuddin, 2021). The pandemic has posed numerous challenges to students, with mental health concerns being at the forefront (Piya et al., 2022). In a cross-sectional study of medical students, the authors found that the most stressful factors included fear of contracting the disease, prolonged confinement, frustration, boredom, inadequate availability of essential supplies and financial difficulties. Additionally, Banday et al. (2020a) explored the fear, depression, comprehension, and psychological status of college students in China during the pandemic. Different enlightening and government mitigation sequencers have been shown to have a small but long-lasting effect on the moods of college students, and research has shown that mental vigor follows (Borah et al., 2022).

While there is some existing research on the relationship between the mental health of Bangladeshi students and their academic performance, it is unclear whether any studies have specifically examined how their education, lifestyles, and plans intersect with their mental health. Given the significance of these factors, policymakers and relevant stakeholders must undertake efforts to explore effective interventions for improving the mental health of this population (Masud, 2019; Sharma and Borah, 2020). This is the resolution for digging it up. Qualitative evidence was used for the study's pickles (Khan, 2020). Research Gate and Google Scholar will be used as models for scholarly papers. People who cannot go to a traditional full-time college because of personal or financial reasons may find help in the immediate and self-motivated future pandemic, as well as in other ways (Murphy et al., 2020). It is horrible to try to calm the fears of the whole country on your own, but the combined efforts of the state rebels and people from all walks of life go to the advancing (Shin and Kwanpio, 2022). To retrieve pertinent literature, we employed a comprehensive search strategy by utilizing various electronic databases, including Google, Google Scholar, PubMed, Science Direct, Web of Science, and Scopus. Google has been used to look for policy reports and other related things that cannot be found on scholarly search engines like Science Direct, Web of Science, and Scopus (Barua et al., 2022; Rahman et al., 2022).

In summary, it is imperative to conduct research on the socio-economic and educational ramifications of the COVID-19 pandemic in the context of higher education in developing nations in order to comprehend the intricate obstacles that institutions and students encounter. In order to develop effective policies and interventions to mitigate the long-term effects of the pandemic on education in these regions, it is critical to address these concerns. Few studies regarding COVID-19 and its impacts on higher education other sectors are shown in the **Table 2**.

Table 2. Literature chart.

Authors/Years	Purpose/Objectives	Country & context	Samples	Theoretical Frameworks/Models	Main Construct	Key Findings
Ataguba, 2020	“Determine the impact of COVID-19 contagion on the social and educational aspects of Saudi Arabian university students.”	Saudi Arabia	1360 students & teachers	Social impact theory (SIT) (Ataguba, 2020).	“The COVID-19 pandemic’s effects on their life, including the good and bad, on their social and educational elements”	There were connections between the social and academic components of students’ life in respect to the pandemic’s effects.
Akter et., 2022	Determine the psychological effects on female students during COVID19 of the closure of the school and their social isolation.	Bangladesh	130 respondents	Socialization theory (Akter et al., 2022).	It claims that traditional schools’ advantages are crucial for socialization, which was severely disrupted by the pandemic.	The sociopsychological impact of school closings on enrolled urban girls in Dhaka, Bangladesh, during the Covivirus-19 pandemic.
Bhuiyan et al., 2020	Learn about COVID-19’s effects on Bangladesh’s institutional education system and the students it affects.	Bangladesh	2460 samples	structural design or theory (Bhuiyan et al., 2020).	Technology, parental control, online social support and self-disclosure	This study concentrates on evaluating the repercussions of the ongoing COVID-19 pandemic on the educational system of Bangladesh and proposing feasible remedial measures.
Thu et al., 2020	The aim of this research Effect of social isolation policies on COVID-19 transmission in 10 countries with high COVID-19 infection rates	USA, Spain, Italy	250 samples	Social measures theory (Thu et al., 2020).	the strategies for social isolation & social sharing.	The purpose of this study is to demonstrate the influence of social exclusion policies on the COVID-19 pandemic in ten countries that have experienced high infection rates of COVID-19.
Khan, 2020	The aim of this investigation is to examine the influence of Covid-19 on the employment prospects of newly graduated individuals in Bangladesh.	Bangladesh	160 students	Explorative model (Khan, 2020).	digitalization and potential effects.	For recent grads looking for ways to deal with the pandemic, the report advises looking for alternatives to careers.
Islam et al., 2020	The public’s view of comparative shutdown scenario analysis is the goal of this study.	Bangladesh	159 respondents	Unspecified	principal Component Analysis (PCA), hierarchical Cluster Analysis (CA), Pearson’s correlation matrix (PCM) (Islam et al., 2020)	How they might impact Bangladesh’s socioeconomic COVID-19 pandemic’s long-term development and strategic management system.

Table 2. (Continued).

Authors/Years	Purpose/Objectives	Country & context	Samples	Theoretical Frameworks/Models	Main Construct	Key Findings
Shammi et al., 2020	The objective of this study is to investigate the impact of the COVID-19 pandemic on police stress, mental health, and resilience.	USA	250 samples	Social penetration theory (Shammi et al., 2020).	rotating shifts, violent threats, and the need for extreme caution	Exploring the impact of the COVID-19 pandemic on officer stress, mental well-being, adaptability, and aberrant behaviour.
Ataguba and Ataguba, 2020	The purpose of this study is to examine the occurrence of stress and anxiety amidst the COVID-19 pandemic, and to derive insights from them.	Turkey	165 samples	Social penetration theory (Ataguba and Ataguba, 2020).	moral harm, sorrow, and worries about personal safety.	The COVID-19 pandemic has posed complex challenges to society, leading to an enhanced comprehension of pre-existing cognitive impairments.
Anwar et al., 2020	Bangladesh and COVID-19 are the focus of this investigation, along with potential solutions.	Bangladesh	-	Theoretical model (Anwar et al., 2020).	Social impact, social distance.	The country can lessen the effects of the epidemic with the help of international aid and an immediate, encouraging, and compassionate partnership between the Government, the populace, and health specialists.

3. Methodology

3.1. Research design

COVID-19 circumstances are updated every day. Discovering updated and decisive knowledge as the appearance continues is quite hard. This paper presents a comprehensive analysis of the impact of the COVID-19 outbreak on various sectors in Bangladesh. The study utilizes primary and secondary data sources to establish its findings (Begum et al., 2020; Nath et al., 2020). The rapid pace of COVID-19 disclosure in Bangladesh hinders this academic figure from disseminating any precise future quantitative estimation. These sections comprise information about the methodology, which includes procedures, measures, data collection, and data analysis processes that the researcher used in their study. To collect data, we shared our concept with our supervisor and told him the purpose of our study. Following the receipt of consent, we disseminated the survey link to the student population through a messaging platform and requested their participation in responding to the questionnaire. Before the study started, the plaintiffs had to sign an informed consent form to say they agreed to participate. From February 5 to July 9, 2022, both male and female university students were invited to participate in an anonymous online examination. A unique invitation letter was sent for each submission, which served as a token to access the online exam. The process of obtaining online consent was rigorous, and participants were required to indicate their consent by clicking on a designated 'button' upon completing the authorization process. This signified that they had approved and agreed to participate, as stated in the corresponding email.

3.2. Constructs and measures

The dimensions were derived from the available literature. Two-way versions are based on the original English text in order to preserve the translation's evaluating qualities and meaning. The survey consisted of three sections to collect data regarding demographic information and respondents' reflections on the economic, social, and educational implications of COVID-19. While COVID-19 is a distinct pathogen with unique features, it is not the first to manifest nationally (Masud and Mondal, 2017; Thu et al., 2020). Therefore, it is imperative to incorporate a specific temporal framework when conducting a comparative analysis of recent epidemics. As a result, the significance of COVID-19 state-wide was derived from common nonfiction about the effects of Unembellished, with some topical recitation on the contagion and control measures (Al-Rabiaah, 2021; Masud and Hossain, 2019). This study examines the positive and negative impact of the COVID-19 pandemic on regular university students' social and emotional aspects, society and the future, online education, and coursework. The study utilizes a weighbridge to determine how students perceive positive effects on their social lives during the pandemic.

In order to thoroughly analyze the socio-economic and educational ramifications of the COVID-19 pandemic, this research utilized a mixed-methods design. The survey instrument consisted of three primary sections, which collected demographic information and responses from participants regarding the educational, social, and economic ramifications of the COVID-19 pandemic. Item 1 of the study examined the

perception of mental well-being, delving into various constructs including clarity of thought processes, coping mechanisms, and emotional resilience (Smith, 2020). Item 2 explored the concept of Sense of Unity and Belonging, investigating various constructs including Perceived Safety and Security, Social Connectedness, and Community Engagement (Jones et al., 2019). Item 3, which pertained to Social Interaction and Cultural Development, comprised of the following constructs: personal growth and development, cross-cultural understanding, and social awareness (Brown and Johnson, 2021). The fourth item of the assessment evaluated the online learning experience by investigating constructs such as satisfaction with online instruction, the effectiveness of virtual interaction, and technological adaptability (Miller et al., 2022). Item 5 examined Future Outlook and Preparedness, encompassing the following constructs: Perception of Future Challenges, Adaptation Confidence, and Resilience Planning (Lee and Wang, 2018).

The researchers used primary data for this study. The data was collected through online surveys. The data collection procedure involved the use of a Google Survey Form and the subsequent dissemination of the observation through various social media platforms, including but not limited to blogs, Facebook, and Facebook Messenger, among others. The knowledge has been collected from the very beginning, from February 5 to July 9, 2022. And for this purpose, we followed authentic newspapers, articles, books, Science Direct, research get, media outlets, research agencies, Google, think tanks, press releases, web portals, different research papers, and policy experts on this pandemic. The internet is a main source for data collection and review of literature (Ataguba, 2020). Multiple methods were employed in this study, including statistical analysis and thematic analysis, to separate the data. The quantitative part of the study involved using MS Excel and SPSS to sort the data. Initially, the data were extracted from the Google form and imported into an MS Excel file.

Subsequently, the data were sent to SPSS, where they were statistically separated. The statistical analyses included both direct and indirect methods. Descriptive research was used to determine the frequency, percentage, and mean of the data. Additionally, independent samples T-tests and Way ANOVA tests were performed to examine the differences in participant responses based on gender, class, and age. Furthermore, regression analysis was conducted to investigate the economic, social, and educational implications of understanding the research topic in developing countries, using Bangladesh as a case study. The discourse was acceptable because the picture was big and there was a need for parametric testing. Measurement (principal material analysis) was also done on the audit scales to make up for the fact that each part weighed one ambassador (Akter et al., 2022).

3.3. Conceptual framework

The findings of this study pay homage to the present SEET's framework, the dynamism of occurring in the social with unrelated ascendancy in these events, and authority on interrelated over of the event the consequence of their social, economic, and lives (Ataguba, 2020). As alluded to in the SEET for this training, the prohibitive measures included a lockdown encirclement of all universities and schools; breakdown of all places daily, such as sports centres, amusement parks, and zones;

forbidding all social congregations, self- possessed with funerals; and ending shopping malls with the destruction of and supermarkets (Masud et al., 2017; Shimanta et al., 2020). Finally, online study and education fluctuate in importance in life. According to online appreciative, online study sharpened their book-studying atmosphere (**Figure 3**). While the internet was great for tracking their teamwork, they neglected self-reliance (Kantamaneni et al., 2022).

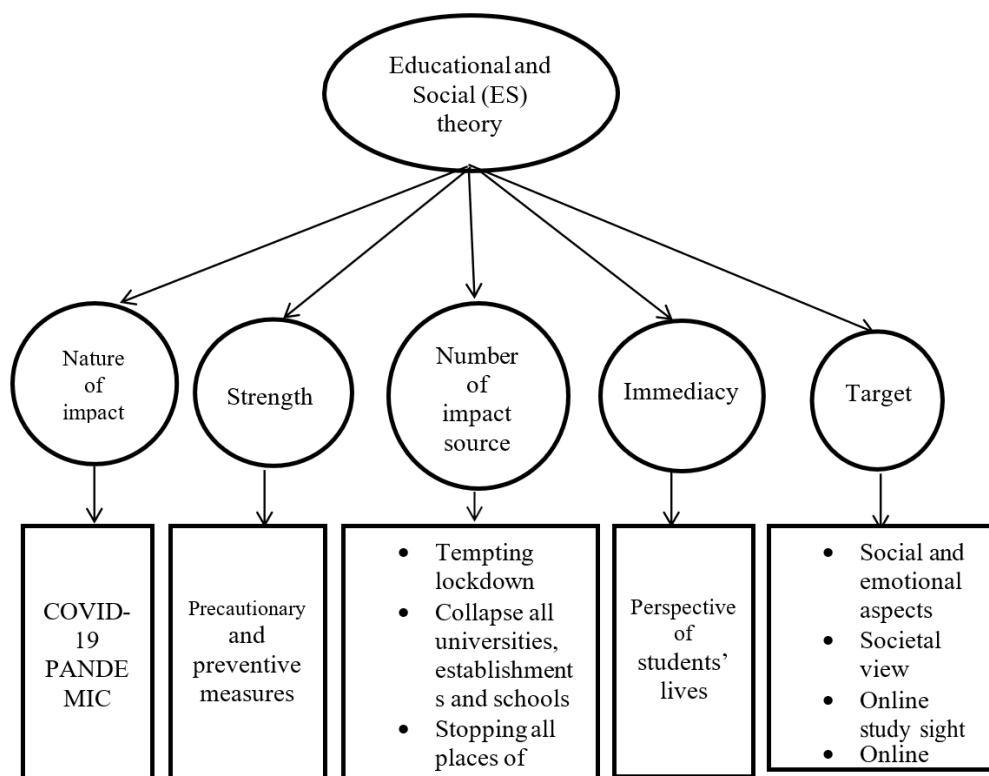


Figure 3. EST framework for COVID-19 pandemic consequences.

Although this study was conducted in Bangladesh, it may be similar to other studies that point out encouragements related to the. It is the prerequisite for on-going to hold how innumerable can set up on the positive viewpoint for students issued from answer back to this (Assiri, 2021). Curfew’s adverse effects include loneliness and leaving areas. COVID-19 had a conclusion about students’ lives regarding ineffectiveness and feeling stuck, but not as much as the opening. It also allows them to relax with relatives while shimmering. Curfew’s adverse effects include loneliness and neighbours leaving, indicating an emotional component of the kids’ lives was lost. Closing all communal gathering locations made students less attractive, less active, and less able to interact (Piya et al., 2022). Online learning cannot replace the classroom’s social atmosphere. Online learning bolstered students’ social commitment, but they needed to have group learning’s hands-on component. The conservative and preventive measures were based on the properties utilised to contain the COVID-19 infection (Islam et al., 2020). These findings show a need for technology that meets users’ social and academic needs during catastrophes. For example, cultivating communications technology’s ability to withstand the online classroom’s lack of a social setting should not lose reimbursements, so it is important to handle both the

destructive and positive issues (Nath et al., 2020).

The study’s implementation of a preventive measures package to comprehend how COVID-19 spread within communities and avoid transmission could have significant social and educational consequences. From SIT’s perspective, COVID-19 initiatives could change children’s social and academic lives. “Social effect” refers to others’ projected influence. SIT shows how control is reciprocated by either a majority or minority through a multiplicative combination of its strength, immediacy, and quantity of sources. (Ataguba, 2020; Masud and Ferdous, 2016). Instantaneous sources have a more significant social influence. The total also incorporates Lateen’s SIT framework, which indicates the study’s social encouragement (strength, immediacy, number of sources, and number of birthplaces with personal impact). The generalizability of SIT’s structure, which may be utilized in various scenarios, is its attraction. The SIT framework shows how people’s social context affects message and social event studies (Piya et al., 2022; Wider et al., 2023). According to a recent study by Sakamoto, et al. (2020), SIT can also show how social field armies hinder others over time.

4. Analysis and results

4.1. Respondents’ profile

This study of 90 university students, comprising men and women pursuing different academic degrees in Bangladesh during the curfew period, revealed their demographic characteristics. The sample had a slightly higher percentage of women (47%) than men (52%), and the majority of participants were aged between 21 to 30 years. Approximately half of the participants were pursuing Bachelor’s and Master’s degrees (50% each), respectively, and were ready to commence their studies (**Table 3**).

Table 3. Demographic information.

		Number of Participants	Percentage (%)
Age	21–25	65	71.5
	26–30	25	28.9
Gender	Male	47	52.0
	Female	43	47.0
Academic degree	Bachelor’s	45	50.0
	Master’s	45	50.0
Total		90	100

4.2. Statistical outcomes

4.2.1. Perceptions of positive and negative outcomes of COVID-19

In **Table 4**, this study utilized a 30-item scale to assess the impact of the COVID-19 pandemic on the social and educational lives of students. Principal component analysis (PCA) was conducted to validate the scale. Prior to PCA, data quality was assessed by examining the correlation matrix, which revealed numerous coefficients

of 0.3 or higher. The mean scores for each item were categorized as low, medium, or high for further analysis (Tanveer, 2021).

Table 4. Total variance narrated by the factor of the positive influence of COVID-19 nationwide items.

No.	Positive impact factor	Factor Loading	Eigenvalue	% Variance	Reliability Coefficient
			5.0430	16.8100	0.8200
1	Accomplishment theological affect calm of mind	0.705	-	-	-
2	Announcement of the fortitude and condensation	0.667	-	-	-
3	Make up intimate complications collectively	0.648	-	-	-
4	Redeployment of precedence in life	0.626	-	-	-
5	Attachment among private supporters	0.560	-	-	-
6	Attention to friends' benefit	0.544	-	-	-
7	Instruction to take care of the body	0.535	-	-	-
8	Investment in environmental health	0.501	-	-	-
9	Increased sense of community concretion	0.493	-	-	-
10	New popular culture and temper	0.397	-	-	-

4.2.2. Social and emotional perspective of students' lives scale

Table 5 indicates that students' social and emotional lives were significantly impacted by the COVID-19 pandemic during curfew hours, as evidenced by their high degree of agreement with both positive and negative consequences, with an overall mean score of 4.05 and a standard deviation of 0.50. The findings reveal that there were no significant gender differences in the variance. The data supports the dominant influence of the pandemic on the social and emotional well-being of students.

Table 5. Social and emotional perspective of students' lives.

Positive Consequences		M = 4.09	± SD = ± 0.60
Tenacity among family members		4.420	± 0.820
Care of friends' good		4.110	± 0.870
Resolve family problems collectively		3.980	± 1.020
Result		4.050	± 0.5000
Overview Result			
Gender	N	Mean	St. Dev.
Male	47	4.020	± 0.4970
Female	43	4.080	± 0.5080

4.2.3. Societal and environmental students' lives range

Concerning societal and environmental characteristics of their lives, students articulated strong agreement that the COVID-19 epidemic had a good conclusion

about their environment by encouraging further investment in environmental spotlessness. To contain the spread of COVID-19, students’ perspectives were assessed and showed promising results in terms of a perceived positive impact on society, reflected in a sense of communal unity. This demonstrates that, notwithstanding the hardships, the epidemic has undoubtedly transported countries and served as a catalyst for encouraging a sense of social cohesion and relating populations (**Table 6**).

Table 6. Explicative statistics for the consequence of COVID-19 on societal and environmental view of students’ lives.

Positive Consequences		M = 4.16	± SD = ± 0.63	
Balance with all tainted society members		4.000	± 1.150	
New exoteric culture and nature		3.990	± 1.010	
Negative Impression		3.290	± 1.290	
Inessential purchasing of material things		3.290	± 1.290	
Result		3.980	± 0.560	
Gender	N	Mean	St. Dev.	T
Male	47	3.96	± 0.552	-1.586
Female	43	4.01	± 0.574	-

4.2.4. Online education sight of students’ lives distance

Table 7 shows that students’ perception of the impact of the COVID-19 curfew on their online education vision was moderate (M = 3.59, SD = 0.61), with no significant gender differences observed (Bhuiyan et al., 2020). This may emphasize the necessity for professors to discuss the lack of it, which includes direct online study. Increase natural student-teacher interactions. Online education during curfew improved student socialisation (Zheng and Uprasen, 2021). The online learning situation entails two groups of interdependent collaboration styles: the first set comprises students, instructors, and course materials. Applications (like Zoom) or dialogue boards (for Blackboard) converted crucial primary or supporting apparatuses for online education as social distancing became indispensable due to COVID-19. The results of this study support the favorable influence online learning has on enlightening students’ social connections (Bodrud-Doza et al., 2020).

Table 7. Expository statistics for the power of COVID-19 on online education scene of students’ lives.

Positive Consequence	M = 3.53	± SD = ± 0.91
Economical and methodical clinch in education	3.460	± 1.210
Improve social interaction in online education	3.590	± 1.130
Negative outcome	3.660	± 0.990
few online education infrastructure	3.430	± 1.240

Table 7. (Continued).

Overview Result			
Gender	N	Mean	St. Dev.
Male	47	3.550	± 0.5770
Female	43	3.610	± 0.6380
Result	-	3.590	± 0.610

The students’ belief that COVID-19 improved their understanding of life and death was supported by their spiritual and physical well-being. They observed that the use of ICT during the pandemic helped them realign their priorities by facilitating work and study from home, enhancing social connections, and providing entertainment (**Table 8**).

Table 8. Pearson correlations among aspects of students’ lives.

	1	2	3	4	5	M	± SD
Virtue and demonstrative sight	-	-	-	-	-	4.050	± 0.500
Idealistic and view	0.490	-	-	-	-	3.970	± 0.500
Societal and conservational sight	0.420	0.390	-	-	-	3.980	± 0.560
Study characteristic	0.180	0.260	0.270	-	-	3.420	± 0.640
Education scene	0.200	0.270	0.290	0.440	-	3.590	± 0.610

4.3. Social impacts

In this section, we covered the COVID-19 outbreak in Bangladesh, an overall scenario, social, educational, and the government’s response. COVID-19 has rapidly spread worldwide, impacting not only physical health but also social and educational domains (Borah et al., 2022). Bhuiyan et al. (2020) observed that COVID-19 has impacted various non-health aspects of the country, such as social and educational elements. Pandemic-induced constraints, such as spatial separation, isolation, and quarantine, have a negative impact on individuals’ well-being and mental health. This can lead to various psychological mediators, including but not limited to sadness, concern, fear, hardship, impediment, guilt, powerlessness, singleness, and tediousness (Saka, 2021). Insufficient testing and deaths at COVID-19 isolation facilities have been reported in the 160-million-person country. Wearing a mask and practicing good hand hygiene are crucial in preventing the spread of COVID-19. Unethical business practices, such as overpricing hand sanitizers and masks, have also been reported. This pandemic affects religion by cancelling prayers in many immanent nations’ mosques, temples, and churches (Parke, 2020). This vast spiritual brotherhood hinders Bangladesh (Gupta and Ahmed, 2020). Bangladesh’s government discourages large religious gatherings. Since most Bangladeshis are Muslims, rural religious leaders condemned his administration’s premise, and people gathered in mosques to pray for the country’s recovery. Due to lost income and rising prices (Ataguba, 2020), The study collected data on participants’ social media usage, internet behaviour, and online meeting duration. The findings suggest that online meetings have a positive impact on

the academic performance of Bangladeshi students (Piya et al., 2022). One factor is that many students study online. Employees must, therefore, regularly attend online sessions (Khan, 2020).

High COVID-19 programming rates worldwide affect students' daily lives. We were determined to spot sleep pattern aberrations. Three categories are formed based on sleeping habits. The groups were industrialized according to the non-mandatory sleep schedule of 7 to 9 hours for adults and teenagers and 7 to 8 hours for the elderly, care, hobbies, physical activity, yoga, etc. Before the epidemic, 47.4% of people spent 2 to 4 hours per day on personal precautions (Piya et al., 2022).

4.4. Educational impact

Most governments have closed educational institutions trying to keep up with the COVID-19 pandemic. COVID-19 led to nationwide closures of schools and colleges, resulting in disrupted education worldwide. Closure of educational institutions during exam cycles resulted in the suspension or cancellation of several tests, as noted in UNESCO's message on April 5, 2020 (Sharma and Borah, 2020). The pandemic affected Bangladesh's educational system, consuming schools and colleges. If nothing changes, public university session jams should rise (The Daily Star, 2020). The Bangladeshi government proposed a digital education system and distribution of unique resources for academic purposes (Shin and Kwanpyo, 2022). 38.6 million Pupils study in Bangladesh. 3.6 million are in starting education, 18 million in basic, 13 million in accessory, and 4 million in branch let (Jena, 2020). The smartphone's poor entrance prevents students from accessing online classes, presentations, and ebooks (Bangladesh Bank, 2020).

Figure 4 discusses that the business standard said that in their survey 2022, 55.3% of students have access to a laptop, PC, or tablet for online classes. Inclusive internet usage, including social media and website browsing, was assessed along with consultation time. However, compared to before, just 7.1 percent of individuals now employ more than 6 hours online (Shin and Kwanpyo, 2022).

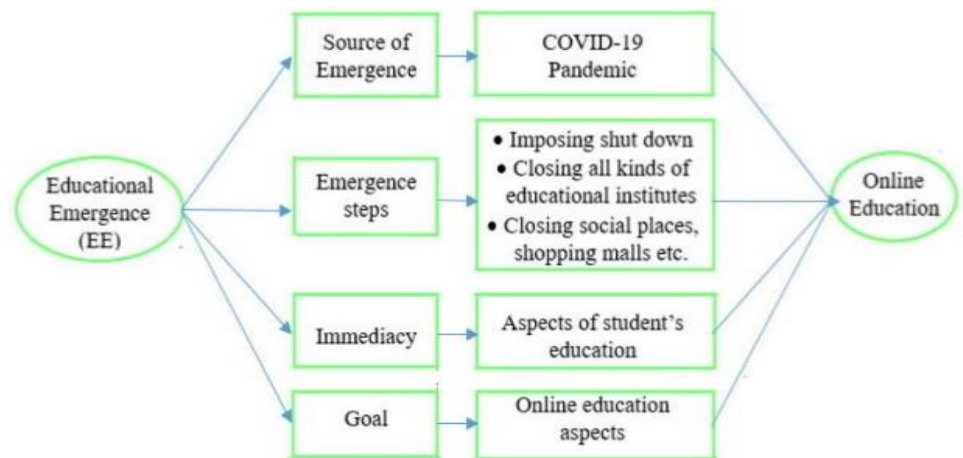


Figure 4. System model of education.

Source: Databd.com (2022).

5. Discussion

The coronavirus has shown each country, including Bangladesh, the importance of medical treatment and pandemic plans. COVID-19 revealed our powerlessness and nullification in Bangladesh's healthcare system. The world's largest evacuee centre does not go beyond pandemic risk. Good governance, internal control, and clarity between the government and NGOs with a legal formation improve Bangladesh's healthcare delivery (Borah et al., 2022). The pandemic affects pupils' schooling. The Bangladesh government's implementation of these programmes is positive. The graph indicates periodic increases in the number of recovered cases, alongside a decline in the number of deaths. If Bangladesh's government performs well, the country may successfully manage the coronavirus pandemic (Gupta and Ahmed, 2020). This study examined how COVID-19 exaggerated Bangladeshi students' plans, everyday lives, social lives, and mental health. Uncertainties include late education, social and daily life interferences, and member variations. Many candidates spend less time on coursework and more time on social media and online meetups due to increased internet use. Students collaborate online to stay in touch with friends and family while staying indoors for safety, which is accumulated internet use (Chanda et al., 2022). Accommodation is necessary for online students. Regulations are required for the upkeep of their daily routines and social lives. Overusing social media and online forums can be prevented. Internet use should be safe. This state-wide sagacity will not exist in 2021. In conclusion, the results of this modern lesson show an equivalent of the treaty for modified social and viewpoint repercussions (Al Masud et al., 2021). Next, we discuss these findings. To comprehend the impact of COVID-19 on students' social and emotional well-being, the study explored both positive and negative effects. Findings indicated that students' understanding of COVID-19 at a national level fostered stronger familial relationships, positively influencing their social, economic, and educational aspects (Sapkota and Bastola, 2017). Findings indicated a moderately positive perception of online learning among students during the COVID-19 pandemic. Students demonstrated that internet perusing was relevant to their learning circumstances throughout the curfew days (Chowdhury et al., 2022). The online education context comprises two sets of presentations, the first being the organization of technologies and the evolution of communication and the second being the presentation of the first set. Due to the pandemic, submission of assignments through Blackboard has become a crucial aspect of primary and online education to maintain student engagement and facilitate their adaptation to remote learning (Alshehri, 2021).

We expand on the advice, drawing from our research and lived experiences, to provide essential guidance on actions that policymakers, governments, and affected individuals can take to mitigate the adverse effects of the COVID-19 pandemic and promote educational and social resilience. Evaluating and enhancing educational curricula to include a comprehensive understanding of technology is crucial. This should involve teaching students about digital literacy, data privacy, cybersecurity, and the critical thinking skills necessary to navigate the digital world effectively. Governments should prioritize investment in technological infrastructure to ensure widespread access to the Internet, particularly in remote areas. By expanding internet facilities, more individuals will have the means to participate in online classes,

enhancing educational opportunities for all. In light of the ongoing pandemic and potential future crises, it is essential to recognize the significance of job sectors with technological involvement. Governments should encourage developing and growing industries such as remote work, digital services, e-commerce, and technology-driven healthcare. This will create resilient job opportunities and boost economic growth. Governments must address the dismissive and divisive stance towards online education that has persisted for too long. It is vital to recognize the benefits of online learning, such as flexibility, accessibility, and adaptability. Policymakers should provide support and resources to educational institutions, ensuring they have the tools and training to deliver high-quality online education. Governments like the Government of Bangladesh should actively seek international investment to accumulate capital and foster technology transfer. This will help bridge technological gaps, promote innovation, and accelerate economic development. Establishing partnerships with countries that have advanced technological capabilities can facilitate knowledge exchange and collaboration. By implementing these recommendations, governments can harness the potential of technological advancements, overcome the challenges posed by the pandemic, and pave the way for a more inclusive and technologically empowered society.

6. Conclusion

COVID-19 has been a momentous problem for Bangladesh within the previous couple of weeks after its uprising within the country. Coronavirus disease (COVID-19) is a communicable disease caused by a completely unpatrolled coronavirus. The coronavirus pandemic is now a luscious concern for everyone on Earth. As the pandemic to the letter tract in Bangladesh, the summit of this nationwide movement, besides this, the state-wide education and social aspects of Bangladesh face much intimidation, like increased anxiety among people, increased suicide, various social complexity, etc. The countries will take some years to return to their customary situation. Since we still need a lucid concept about when the impact of COVID-19 will be reduced, we must adapt and adjust our lifestyle and dealing procedures accordingly. It might be possible for the government to battle against the threat merely with the specified cooperation from society and the personal sector. Government, nongovernment, autonomous organizations, private organizations, individual philanthropists, industrialists, celebrities, athletes, volunteers, and ordinary people should work together, and Bangladesh can exceed this worse situation to war versus the awesome COVID-19.

The study has limitations related to sample size and scope. The sample size was estimated to be too small to provide conclusive findings. Data were collected only from a single department of a public university in Bangladesh, limiting the generalizability of the findings. The study focused solely on the impact of COVID-19 on education and social outcomes in a public university context in Bangladesh and did not account for teacher perceptions. In order to identify gaps between student and teacher perceptions, it is important to consider teacher perspectives. Furthermore, the study provides a broad overview of the situation in Bangladesh. However, it does not delve into specific measures for controlling the spread of the virus in the education

and social sectors.

The COVID-19 has become murky in recent days. There is no actuality on how long it will last. The outcome of the COVID-19 pandemic in a growing country like Bangladesh is huge. It is crucial to realize the real impact of COVID-19 in all segments, such as Bangladesh's social and educational sectors. Nobody wants this type of lie, which can be the seed for thousands of people's deaths. So, it is time to make the required graduation to save many working get-togethers who cannot survive alone in this emergency. Despite the challenges posed by the COVID-19 pandemic, Bangladesh can leverage the situation to mitigate its effects. The study shows that although many students have had positive experiences with online learning during the pandemic, some have struggled with exams, dropped semesters, and reduced GPAs, leading to disinterest in online classes. However, online education remains the best option in the face of extreme circumstances. The study recommends that teachers be trained to utilize technology effectively, and the country should improve its broadband internet connectivity. This study concludes that at the commencement of the pandemic, Bangladesh faced many challenges to skirmish the situation. However, with the timely rejoinder of the government, Bangladesh can flabbergast this worse situation.

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