

# Negative Impact of the COVID-19 Pandemic on the Life of University Students in Bangladesh

Master's Thesis in  
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## Abstract

**Aim:** The aim of the study was to investigate the negative effects of the COVID-19 pandemic on academic studies, daily life, family atmosphere, and psychological well-being among university students in Bangladesh.

**Method:** A questionnaire was completed by 108 female and 157 male university students in Bangladesh. The mean age was 22.1 years (SD 1.9) for females, and 23.1 years (SD 2.4) for males. The data were collected from August to November 2020.

**Results:** Among the respondents, 5.7% had been infected with the COVID-19, 14.3% had an infected family member, and 49.8% knew someone who had died from the pandemic. Female reports on negative effects of the pandemic on daily life were significantly higher than reports by males. No sex differences regarding the negative impact on academic studies, family atmosphere, or psychological well-being were found. A negative impact of the pandemic on psychological well-being correlated significantly with a negative impact on academic studies, daily life, and family atmosphere.

**Conclusions:** It was concluded that students who reported a high level of negative impact on psychological well-being due to the pandemic also scored significantly higher on a negative impact of the pandemic on academic studies, daily life, and family atmosphere.

*Key Words:* COVID-19 pandemic, academic studies, daily life, family atmosphere, psychological well-being, university students, Bangladesh.

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# 1. Introduction

## 1.1 Aim of the Study

The aim of the study was to investigate consequences of the COVID-19 pandemic among a sample of university students in Bangladesh. The study assessed changes in the students' curricular and extracurricular activities during a part of the initial lockdown period. Negative effects of the COVID-19 were measured for academic studies, daily life, family atmosphere, and psychological well-being of the students.

## 1.2 Background

At the very beginning of 2020, the world began to fight a common invisible enemy named after a coronavirus, the COVID-19 (Clemens et al., 2020). Unlike other epidemics, this virus transmitted into local and international levels within a couple of months thus gaining the status as a pandemic (World Health Organization, 2020). To combat the biological hazard, the most common strategies were locking down cities and countries, implementing travel restrictions, shutting down offices and workplaces, and informing people to maintain social distance (World Health Organization, 2020a).

Like other countries, Bangladesh also tried to secure its people from the coronavirus infection through locking down cities, shutting down institutions, and banning public gatherings (Sony, Hasan, Roy, & Basu, 2020). In response to this, much like senior citizens, students also confined themselves within indoors refraining from engaging with lecturers, other students, sport coaches, music teachers, friends and peers. The lock down situation in Bangladesh began on the 17th of March 2020 and has continue since (Foyez, 2020). Due to the circumstances, all students, including tertiary-level students, have been staying in their homes since mid-March until the time of this writing in December 2020.

Scholars such as Clemens et al. (2020), Thakur, Kumar, and Sharma (2020), and Chandir, Siddiqi, Setayesh, and Khan (2020) have speculated about the potential negative impact of the pandemic on the mental health of young people. At the same time, in a report Müller and Goldenberg (2020) have reported about a multidimensional impact of school closures which is also connected to social class. For instance, 'summer learning loss' in Western society effects low socio-economic class families' younger children as they have to spend more money which may cause a new economic challenge to them. Similarly, to give access to online education to their children, upper-class families tend to increase their

expenditures. Besides, the challenge of distance learning also depends on the quality of teaching (Müller & Goldenberg, 2020). Likewise, Thomas and Rogers (2020) also stressed that this situation can lead students to an unequal situation because at home not all students have similar access to materials, tuition support, infrastructures, and so on. Whereas in an educational institution, each can share the same space and resources, making them equal.

However, to accelerate the wheels of education and to access education for all the Bangladeshi government has begun online lessons on government-run television known as *Sansad* television and radio, which later will be uploaded onto two YouTube channels *Kishore Batayan* and *Amar Ghar Amar School* (Sakib, 2020; Staf Reporter, 2020). In addition, the lectures have been telecasted on social media under the name *Amar Ghare Amar School* (Sakib, 2020; Staf Reporter, 2020). The teaching lessons generally last from 2 - 4pm (Sakib, 2020; Staf Reporter, 2020). To cope with the pandemic, tertiary-level students, especially at public and private universities, have been urged to take part in live online lectures and to try to adjust to the new normal (Dutta & Smita, 2020). From such a background, this study investigates the scenario of the Bangladeshi university students during the coronavirus pandemic.

### 1.3 Definitions of Central Terms

The coronavirus is a kind of RNA virus, which is characterized by club-like spikes that project from the surface, an unusually large RNA genome, and a unique replication strategy (Fehr & Perlman, 2015).

The COVID-19 pandemic is a global public health issue that happened because of the SARS-COV2, which was first identified in Wuhan City, China in late 2019. Within the next three months, the coronavirus spread worldwide and by observing its nature and novelty, the World Health Organization declared a global health emergency by characterizing it as a pandemic (Velavan & Meyer, 2020; World Health Organization, 2020).

The term “academic life”, although difficult to define, will in this study be defined according to Harré, Grant, Locke, and Sturm (2017), and Black (2018). Harré, Grant, Locke and Sturm (2017) as “*a world in which our heartfelt, personal response to life, our deep listening to others (especially those who don’t fit in), and our careful observations and thought about the social, natural and physical world come together to create and recreate our institutions*” (p. 5). Whereas, Black (2018) stressed that academic life is “*our potential as people living together to be open and inclusive, and to promote the life, and growth, that helps us flourish as individuals and communities*”.

## 1.4 Consequences of Hazards on Academic Life

Studies, according to which different types of hazards, whether natural or not, have an impact on education have been conducted. For instance, Kousky (2016) has argued that a disaster can have an impact on children in three ways. These are (a) damaging physical health, (b) affecting mental well-being, and (c) interrupting children's education and forcing them into the labour force to support their families. Supporting this, Gibbs et al. (2019) found a negative impact on primary school children in Australia because of bushfires. Likewise, another study shows that after cyclone Aila (2009) in three coastal areas of Bangladesh 365 out of 480 schools had been affected (Sharmin & Naznin, 2013). Consequently, 48,647 students, of which 10,872 were boys and 9126 girls, and 1574 teachers had been suffering from receiving proper education for a long time because of school closures (Sharmin & Naznin, 2013).

It has been reported that due to flooding in Cambodia, 57 per cent of the students had to use boats to go to school which increased their educational expenses. Due to their vulnerable socio-economic background, most of the students abandoned their studies after the final exam of grade nine. As a result, a two-and-a-half-month vacation had to be introduced in Cambodian schools (ADPC, 2008). In Cambodia, such a situation affected about 0.5 million secondary students' studies in 2000 alone (ADPC, 2008). Supporting similar findings several studies have shown a negative impact of flooding as a natural hazard in Pakistan, and Zimbabwe (Chang, Khatoon, & Shah, 2013; Mudavanhu, 2014). Similarly, various scholars have presented the association between hazard risks and students' consciousness of the impact of the hazard on academic life. For instance, Lovekamp and McMahon (2011) have found that due to a natural disaster female university students were relatively more afraid than male university students in the United States. They also found that most of the university students were not conscious about hazard risks and bore a fatalistic attitude (Lovekamp and McMahon, 2011). In another study, Lovekamp and Tate (2008) have shown that students at US universities were aware of the potential risks of natural hazards but were not prepared for taking appropriate actions, this was especially true for earthquakes.

However, from these studies it is clear that natural hazards have a close impact on children's education. Likewise, several scholars have identified a close relationship between epidemics and students' academic life, since an epidemic such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) viruses have been considered as a biological hazard. For instance, a century ago due to the polio pandemic in the US, official long-term school closure and quarantines happened in 1916 and subsequently, 24

years later a less-educated adult population had grown in the US community (Meyers & Thomasson, 2017). Over the past few decades, similar actions have also been found to combat some biological hazards. From this point of view, Coombe (2000) has shown that in South Africa, due to fear of transmission the demand for education was reduced and a massive dropout of female students happened due to poverty, sickness, and other socio-economic causes. As an immediate impact of a biological hazard, adverse anxiety scenarios were seen among Hong Kong University students during the SARS pandemic (Wong, Gao & Tam, 2007). Even, challenges to medical students were another impact of hazards identified by Lim, Oh, Koh, and Seet (2009), and they have proposed some pedagogical solutions such as virtual schooling to overcome the challenges. Since the coronavirus is a biological hazard (Emadi & Abtahi-Naeini, 2020), it also has some potential impacts on children's education.

### 1.5 Potential Impact of the Coronavirus Pandemic on Education

The current pressuring situation has a multidimensional impact on society; the impact on education being just one dimension. At the very beginning of the coronavirus pandemic as well as the lock down, several scholars opined tentative consequences of the coronavirus pandemic on education and children. Due to long term closures of educational institutions, most of the scholars were worried about students' mental well-being (Araújo, de Lima, Cidade, Nobre, & Neto, 2020; Sahu, 2020). Supporting earlier studies, Islam, Barna, Raihan, Khan and Hossain (2020), through an online survey among a group of Bangladesh university students, have found that, due to the coronavirus pandemic, lockdown and long-term university closures students have become depressed and anxious. Their findings revealed that about 15% and 18.1% of the respondents were suffering from serious depression and anxiety problems respectively.

Observing the scenario, some scholars have emphasised that medical students, especially those in their 3<sup>rd</sup> or 4<sup>th</sup> year of study, need to visit hospitals to increase their practical knowledge and skills to combat with the pandemic (Ferrel & Ryan, 2020; Sierpina, 2020). Ferrel and Ryan (2020) have suggested some strategic involvement such as conference presentations and meaningful co-curricular activities, in order to increase the quality. Similarly, Sun et al (2020), and Agarwal and Kaushik (2020) have focused on the principle of social distancing. They have emphasized online education not only for medical students but also for other tertiary-level students. The findings of Agarwal and Kaushik (2020) show that most of the students were satisfied with online classes and that they helped them to reduce their stress and remain active.

Different to the above-mentioned studies, Onyema et al. (2020) discussed the impact of global education. They explored the strengths and weaknesses of online education. For example, they mentioned having weak infrastructures including, network, power inaccessibility, and unavailability issues and poor digital skills possibly hindering online education. Similar impact has also been visible among intonation college students (Pragholapati, 2020). From Smith and Donovan's (2020) point of view, this situation has created a radical impact on education, although they discussed it based on university graduates.

Compared to other studies Müller and Goldenberg (2020) speculated that education in times of crisis depends on the socio-economic conditions of the families. For instance, online education may be convenient for upper-class people but less accessible for lower-class people. Overall, their prediction indicates that access to education during a pandemic depends on the parents' socio-economic condition. Similarly, Thomas and Rogers (2020) projected that during the pandemic situation because of infrastructure and other resources, not all students will receive a similar platform for their studies. Such a scenario was further revealed in an in-depth study by Dutta and Smita (2020). They have explored the extent to which owing to infrastructural weakness and poor socio-economic conditions students have been demotivated students in their studies. In addition, the weak connection and the high cost of the internet were other challenges for online education (Dutta & Smita, 2020). Unlike the above studies, scholars such as Khan, Sultana, Hossain, Hasan, Ahmed and Sikder (2020) have described the negative consequences of home quarantine of the students during the coronavirus pandemic.

Although several scholars have emphasised the impact of the coronavirus pandemic on education, whereas Müller and Goldenberg (2020), and Thomas and Rogers (2020) especially focused on higher education and the pandemic's potential impact. Additionally, Onyema et al. (2020) have discussed global education, notwithstanding, they advocated only online education. Similarly, Dutta and Smita (2020), Islam et al. (2020), and Khan et al. (2020) have presented how continuous lockdowns, infrastructural and socio-economic weaknesses make students psychologically vulnerable. However, very few studies rely on empirical evidence. Prior to having empirical data, it is difficult to draw conclusions and take further steps. Therefore, the present study was designed to investigate the impact of the coronavirus on university students in Bangladesh.

## 1.6 Research Questions

The following research questions were investigated:

- (a) How many of the respondents had been infected with the COVID-19, how many had an infected family member, and how many knew someone who had died from the virus?
- (b) Were there differences between male and female respondents with regard to their opinions on the pandemic's negative impact on their academic studies?
- (c) Were there differences between male and female respondents with regard to their views on the pandemic's negative impact on their daily lives?
- (d) Were there differences between male and female respondents with regard to their views on the pandemic's negative impact on their family atmosphere?
- (e) Were there differences between male and female respondents with regard to their views on the pandemic's negative impact on their psychological well-being?
- (f) Have any associations between a negative impact of the pandemic on psychological well-being and a negative impact on academic studies, daily life, and family atmosphere been found?

## 2. Method

### 2.1 Sample

A questionnaire was completed by 108 female and 157 male university students in Bangladesh. The mean age was 22.1 years ( $SD$  1.9) for females, and 23.1 years ( $SD$  2.4) for males. The age difference was significant.

### 2.2 Instrument

A questionnaire was constructed for investigating the negative effects of the COVID-19 pandemic on academic studies, daily life, family atmosphere, and the psychological well-being of students.

*Negative effect on academic studies* was measured by eight items: “To what degree has the COVID-19 affected your academic studies?”: (a) I miss the interaction with the lecturers, (b) I miss the interaction with the other students, (c) My grades have gone down during the pandemic, (d) I find it more difficult to concentrate on my studies, (e) I think online lessons are more difficult to attend than regular lectures, (f) I am less motivated for my studies than before the pandemic, (g) It is difficult to concentrate while studying at home, and, (h) I am more easily distracted by other things than before. The response alternatives were on a five-point scale (0 = not at all, 1 = a little, 2 = neutral, 3 = much, 4 = very much. Cronbach’s alpha for the scale was  $\alpha = .83$ .

*Negative effect on daily life* was measured by eight items: “Does fear of the COVID-19 impact your daily life?”: (a) I avoid people, (b) I do not meet my relatives as often as before, (c) I do not meet my friends as often as before, (d) I do not go shopping as often as before, (e) I do not travel as often as before, (f) I do not eat at restaurants as often as before, (g) I do not prefer home delivery service as often as before, and, (h) I do not go outside for physical or recreational activities as often as before. The response alternatives were on a five-point scale (0 = completely disagree to 4 = completely agree). Cronbach’s alpha for the scale was  $\alpha = .87$ .

*Negative effect on family atmosphere* were measured by eight items “Has the COVID-19 affected the atmosphere in your family? My family members are ...”: (a) Bored, (b) Restless, (c) Tired, (d) Irritated with each other, (e) Arguing with each other, (f) Shouting and screaming at each other, (g) Hitting each other, and (h) Bonding emotionally (recoded). The response alternatives were on a five-point scale (-2 = much less, -1 = a little less, 0 = the same as before the pandemic, 1 = a little more, 2 = much more). Cronbach’s alpha for the scale was  $\alpha = .78$ .

*Negative effects on psychological well-being* were measured by seven items: “Has COVID-19 affected your well-being? Compared to before the pandemic I feel ...”: (a) Anxious, (b) Depressed, (c) Angry, (d) Worried, (e) Afraid, (f) Detached from the environment, (g) Panic attacks, and (h) Unreal. Response alternatives were on a five-point scale (-2 = much less, -1 = a little less, 0 = the same as before the pandemic, 1 = a little more, 2 = much more). Cronbach’s alpha for the scale was  $\alpha = .84$ .

*Personal experiences related to the pandemic* were measured with three questions: (a) Have you yourself been infected with COVID-19? (b) Has anybody in your family been infected with COVID-19? and (c) Do you personally know anybody who has died of COVID-19?. The response alternatives were yes, no, and I do not know.

### 2.3 Procedure

The data collection was conducted using an online Google Drive questionnaire. The data were collected between 4th August and 25th November 2020. Students enrolled in Khulna University, Rangpur Medical College, and the University of Dhaka in Bangladesh were targeted.

### 2.4 Ethical Considerations

The study is consistent with the principles concerning human research ethics of the Declaration of Helsinki (World Medical Association, 2013), as well as following the guidelines for the responsible conduct of research of the Finnish Advisory Board on Research Integrity (2012). All participants were anonymous. They also completed an informed consent letter in the first portion of the e-questionnaire. The consent form provided the participants with information relating to the intent of the study, the confidentiality of the information, and the right to withdraw participation without an explanation.

### 3. Results

#### 3.1 Correlations between the Scales in the Study

A negative impact of the COVID-19 pandemic on psychological well-being correlated significantly positively with a negative impact on academic studies, daily life, and family atmosphere (Table 1). The highest correlation was found between the negative impact on psychological well-being and negative impact on academic studies ( $r = .50$ ).

Table 1  
*Correlations between the Scales in the Study (N = 265)*

Negative impact on	1.	2.	3.	4.
1. Academic Studies				
2. Daily Life	.17 *			
3. Family Atmosphere	.29	.08 <i>ns</i>		
	***			
4. Psychological Well-being	.50	.30	.48	
	***	***	***	

\*\*\*  $p \leq .001$ ; \*\*  $p < .005$ ; \*  $p < .01$

#### 3.2 Sex Differences and Negative Impact of the COVID-19

Female reports on negative effects of the pandemic on daily life (3.18) were significantly higher than reports by males (2.83) [ $F_{(1, 263)} = 10.91, p = .001$ ]. No sex differences on the negative impact on academic studies, family atmosphere, or psychological well-being were found.

#### 3.3 Personal Experiences Related to the Pandemic

Among the respondents, 5.7% themselves had been infected with COVID-19, 14.3% had a family member who had been infected, and 49.8% knew someone who had died from the virus

#### 3.4 Differences Due to A Negative Impact of the COVID-19 on Psychological Well-Being

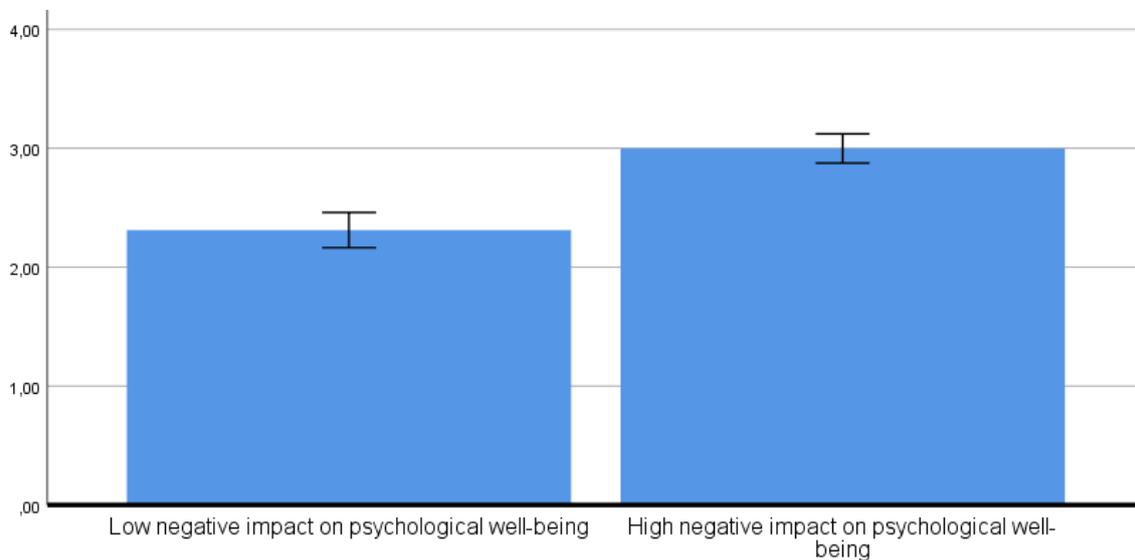
A new variable was constructed based on z-scores of the negative impact of COVID-19 on psychological well-being. Respondents with values below the mean were assigned to the group with low psychological impact due to the COVID-19 pandemic, and respondents with values above the mean were assigned to the group of high psychological impact.

A multivariate analysis of variance (MANOVA) was conducted with psychological impact (high/low) as the independent variable and negative impact on academic studies, daily life, and family atmosphere as dependent variables. The multivariate analysis was significant (Table 2). The univariate analyses showed that students with a high level of negative impact on psychological well-being due to COVID-19 also scored significantly higher on a negative impact of the pandemic on academic studies, daily life, and family atmosphere.

Table 2

*Results of a Multivariate Analysis of Variance (MANOVA) with Negative Psychological Impact of COVID-19 (High/Low) as Independent Variable and Three Dependent Variables (N = 265)*

	<i>F</i>	<i>df</i>	<i>p</i> ≤	$\eta_p^2$
Effect of a Negative Psychological Impact of the COVID-19 (High/Low)				
Multivariate Analysis	27.93	3, 261	.001	.243
Univariate Analyses				
Academic Studies	49.55	1, 263	.001	.159
Daily Life	10.63	”	.001	.039
Family Atmosphere	40.99	”	.001	.135



*Fig. 1.* Mean values for a negative effect of the COVID-19 on *academic studies* of students in Bangladesh with high respectively low scores on negative effect of the pandemic on psychological well-being ( $N = 265$ ).

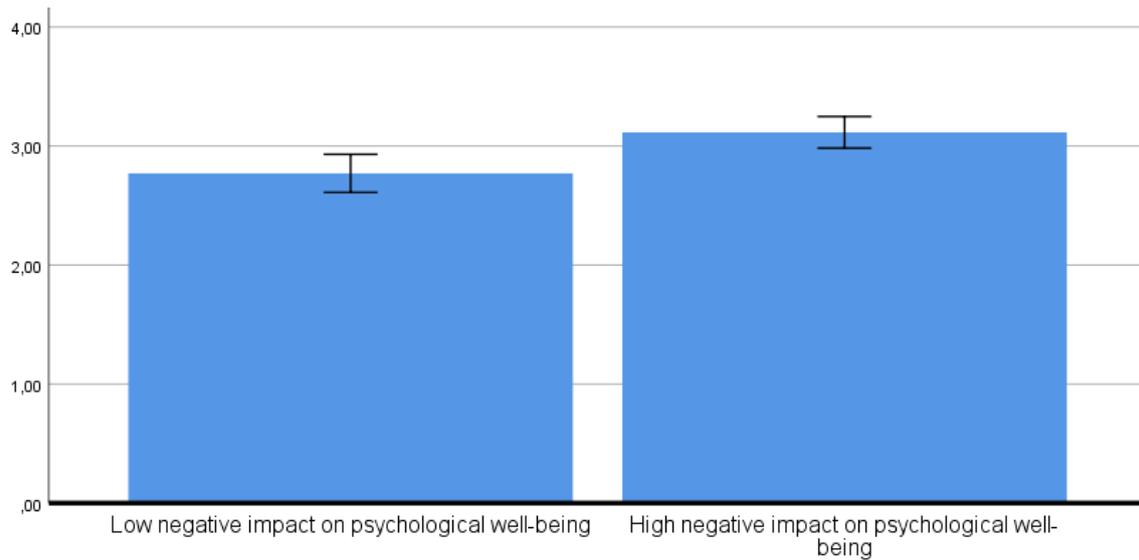


Fig. 2. Mean values for a negative effect of the COVID-19 on *daily life* of students in Bangladesh with high respectively low scores on negative effect of the pandemic on psychological well-being ( $N = 265$ ).

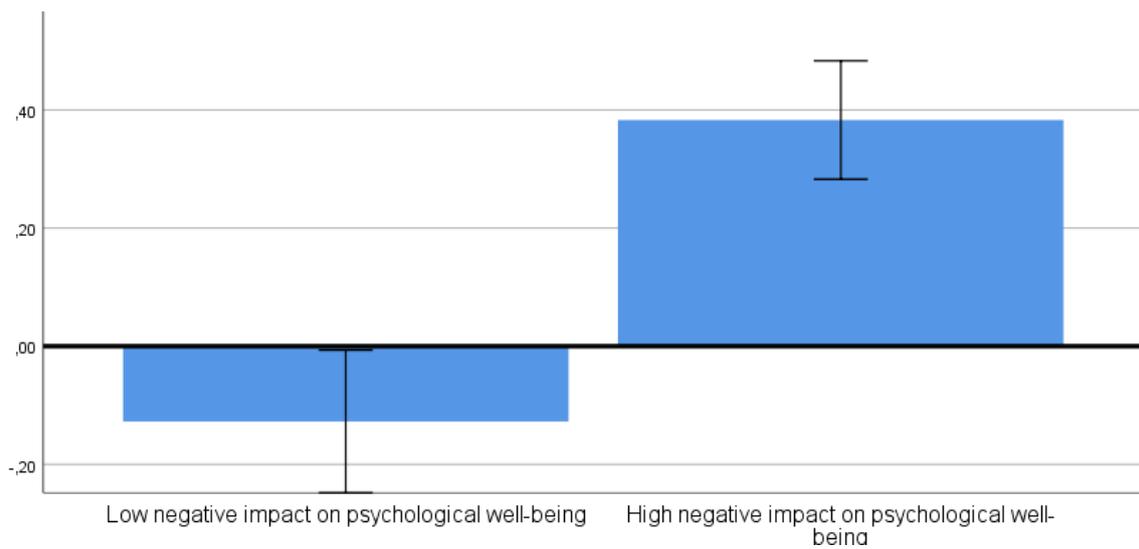


Fig. 3. Mean values for a negative effect of the COVID-19 on *family atmosphere* of students in Bangladesh with high respectively low scores on negative effect of the pandemic on psychological well-being ( $N = 265$ ).

## 4. Discussion

### 4.1 Summary of the Findings

The study depicts the negative consequences of the COVID-19 pandemic on a sample of 265 Bangladeshi students from two universities and a medical college. The average female and male respondents were respectively 22.1 and 23.1 years old. Of the participants, 5.7% had the coronavirus infections and 14.3% of respondents' family members were also infected. Nearly half of the respondents knew someone who had died from the virus. Supporting Thomas and Rogers's research (2020), this study has found a negative impact of the pandemic on daily life, with females scoring higher than males. No sex differences regarding the negative impact on academic studies, family atmosphere, or psychological well-being were found.

In line with earlier studies by Araújo et al. (2020), Islam et al. (2020), and Sahu (2020), the present study also found a negative impact of the COVID-19 pandemic on mental well-being. The study also found, unlike other studies, that students with a high level of negative impact on psychological well-being due to the COVID-19 also scored significantly higher on a negative impact of the pandemic on academic studies, daily life, and family atmosphere.

Furthermore, according to other studies (Clemens et al., 2020; Thakur et al., 2020; Chandir et al., 2020), anticipation of the negative impact on psychological well-being was highly correlated with the negative impact of the pandemic. Besides supporting previous studies, this study also found the highest correlation between the negative impact of the pandemic and academic studies (Agarwal & Kaushik, 2020; Ferrel & Ryan, 2020; Sierpina, 2020; Sun et al. 2020). Overall, the present study revealed that the recent pandemic had a significant negative impact on students' psychological well-being and academic studies.

### 4.2 Limitations of the Study

The small sample size was a limitation of this study. Larger sample sizes from a diversified field generally increase the reliability and the validity of the investigation. Obtaining responses from a larger sample would have been more time-consuming since all the educational institutions were going into continuous closure due to the pandemic and the students were not located in a definite area. Similarly, ensuring gender equality was also difficult. The consequences of the pandemic based on the socio-economic conditions of the students could also be studied.

### 4.3 Implication of the Study

Undoubtedly, the negative impact of the pandemic can be found in every part of society. The tertiary-level students are generally considered as a future specialized human resource of a nation. However, in this study, it was confirmed that in Bangladesh due to the shock of the coronavirus pandemic and continuous lockdown, a threat towards students' psychological growth and academic studies had been posed. Based on these findings, the policymakers and the development agents could rethink the traditional educational methods and existing broadcasting as well as distance learning methods. For instance, instead of physical participation, virtual participation as well as the distance learning models can be effective. The findings of this study hopefully can help policy makers to ensure the participatory virtual classroom to remain active and effective in the educational system. Homework, as well as other types of assignments, could be a way to keep students active in the academic sphere.

For the betterment of psychological well-being, development agents and cultural organizations could launch online cultural programs and competitions, conferences, skill development programs, and motivational seasons. Public and private patronization can be used to boost the programs. A focus on female students' special development programs needs to be launched. The findings of this study revealed that the pandemic has negatively impacted female students' daily lives in the home atmosphere more than the male students.

### 4.4 Suggestions for Future Research

The strengths and weaknesses of students in terms of technical knowledge were not considered in the study. Also, the availability of resources and the socio-economic conditions of the students were not taken into account. In future studies, these could be considered. Future studies could also focus on the causes of the greater negative impact on female students' daily life in the home environment. Despite some governmental initiatives, such as the broadcasting class on national TV and radio channels, future studies could emphasize the weakness of this method.

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