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Influence of employment anxiety on quality of life in a moderated mediation mechanism

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ABSTRACT

The outbreak of COVID-19 caused the temporary closure of all academic programs and this, in turn, contributed substantially to employment-related tension and also impacted quality of life. Therefore, this study investigates the influence of employment anxiety on quality of life in a moderated mediation situation. The study followed quantitative technique and collected cross-sectional data using convenience sampling from university students in Bangladesh who were above 18 years old. It followed a deductive reasoning with data collected through social media from university students who had access to the internet. Partial least squares-based structural equation modelling was used to analyze the data. The results showed that all the direct effects were significantly associated; however, the moderated mediation effect was not supported. The study concludes with notes on the implications for policy formulation and limitations that provide notes on future research directions.

1. Introduction

COVID-19, a pandemic that has shaken almost all corners of the world, altered human lives including their physical and mental health (Kumar, Pinky, & Nuruddin, 2021; Rajkumar, 2020; Xiong et al., 2020). Amidst this crisis, with the rapid surge of infections and the increase in the level of mortality in different waves in Bangladesh, are the most vulnerable group, with no imminent hope of restarting their academic studies and graduating, thus making them employable (Fisher et al., 2021; Mant, Holland, & Prine, 2021; Obuobisa-Darko & Sokro, 2023). Employment anxiety is a significant issue, which gives rise to additional stress arising from closure of firms or jobs during COVID time, apart from the possibility of being infected with COVID-19 (Kawohl & Nordt, 2020). Previous studies have demonstrated that any prolonged stress or anxiety may in the long run lead to depression, so affecting people's mental wellbeing (Johara, Taher, & Uddin, 2021; Talevi et al., 2020). However, little is known about how employment anxiety and belongingness holistically magnify students' depression symptom that consequently impacts the quality of life in a moderated mediation mechanism.

Depression and mental health among students, which are closely associated, have been subject to robust exploration since the outbreak of

COVID-19 in December 2020, and the underlying factors leading to depression have been analyzed in-depth (Jester & Kang, 2021; Khan, Kamruzzaman, Rahman, Mahmood, & Uddin, 2021). Among the many catalysts of stress that may lead to depression, employment anxiety has been identified as a leading contributor, as a high level of unemployment due to COVID-19 is evident worldwide (Mimoun, Ben Ari, & Margalit, 2020; Wilson et al., 2020). The months-long lockdown to reduce cases of infection has raised both the unemployment rate and employment stress (Godinic, Obrenovic, & Khudaykulov, 2020). In light of the many sudden complications, the quality of life of the population has become an area of great concern (Khan et al., 2021).

Belongingness, as stated by Deci and Ryan (1991), is the need for relatedness that encompasses an individual's attempts to relate to and care for others, to feel that others are relating authentically to oneself, and more generally, to feel a intimate and coherent involvement with the social world (Gratz et al., 2020). On a positive note, sometimes being part of a group or family helps reduce depressive symptoms, while on the other hand, depressive symptoms are occasionally neutralized due to the influence of people or important others (Arslan, 2021; Arslan, Yildirim, & Zangeneh, 2021; Yarberry & Sims, 2021).

The neo-normal COVID context aggravates this adverse situation,

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which arises from employment anxiety and has become burdensome due to the closure of educational establishments in Bangladesh (Islam, Akter, Sikder, & Griffiths, 2020; Rasheduzzaman, al Mamun, Faruk, Hosen, & Mamun, 2021; Sultana et al., 2021). Consequently, depression symptoms worsen the quality of life across the world and are prevalent among students (Alkatheri et al., 2020; Ferrer, Iglesias, Blanco-Gutiérrez, & Estavillo, 2023; Ghassab-Abdollahi et al., 2020; Jenkins, Ducker, Gooding, James, & Rutter-Eley, 2020). In this critical situation with employment and other anxiety, the state of students' psychological health needs more care, support, social contact, and belongingness to abate further depression which leads to further decaying mental health (Bantjes & Kagee, 2018; Baumeister & Leary, 2017, pp. 57–89; Mutch & McKnight, 2023; Yildirim & Solmaz, 2021). However, little is known about the complex relationship among employment anxiety, depression, and quality of life in a moderated mediation with belongingness. Therefore, this study aims to answer the following research questions:

Research question 1. How does employment anxiety influence students' quality of life?

Research question 2. Is there any moderated mediation effect on the quality of life?

2. Theory and hypothesis development

2.1. Employment anxiety and depression

Employment anxiety refers to the impulsion, ambiguous fears, insecurities, and spiritual reactions regarding one or more components of a specific job, which creates tension among people regarding their future position (Rosenblatt & Ruvio, 1996). The anxiety of joblessness, which worsens helplessness, plays a crucial role in developing depressive symptoms among students (Mamun et al., 2020). The global pandemic has resulted in job cuts and job insecurity, and has created mental stress (Akkermans, Richardson, & Kraimer, 2020; Antipova, 2021; Hartley, Jacobson, Klandermans, & Van Vuuren, 1990). Moreover, the shutdown of universities has further aggravated depression among university students, as they are unsure as to when they will graduate. In addition, news related to increasing job losses worsens students' depression and affects their mental health (Yoo et al., 2016; Ziauddeen, Woods-Townsend, Saxena, Gilbert, & Alwan, 2020), making them the most vulnerable group affected by the crisis (Lee & Morling, 2021), since new graduates will face a very tight job market, with little or no investment being made in new businesses (Godinic et al., 2020; Kawohl & Nordt, 2020). Therefore, we hypothesize that:

H1. Employment anxiety leads to depression.

2.2. Depression and quality of life

Depression is defined as a manifestation of the feeling of hopelessness regarding the attainment of one's desired goals, with hope considered as a function of the perceived probability of success concerning goal attainment (LeMoult & Gotlib, 2019). Quality of life refers to a concept that integrates mental and physical aspects, including, routine tasks, social functioning, prosperity, spirituality, health status, capabilities, and overall satisfaction with one's life (Alam et al., 2022; Chaturvedi & Muliya, 2016). Depression is a mood disorder that negatively affects a person's feelings and thoughts, characterized by a depressed mood, loss of interest or satisfaction, loss of energy, a sense of guilt or lack of self-worth, disrupted sleep or taste, and less attentiveness (Khan et al., 2021). COVID-19 has affected most of the population more psychologically than physically, as people did not have access to accurate information during the initial stages of the outbreak (Adom, Mensah, & Osei, 2021). Anxiety, stress, and depression affect an individual's quality of life (Tan, Khor, & Ooi, 2020). Studies have illustrated that depression caused by prolonged anxiety contributes to a heightened

level of mental distress, decreases happiness, and strongly affects an individual's quality of life (Ahmed, Ahmed, Aibao, et al., 2020; Ahmed, Ahmed, Aibao, et al., 2020; Wang et al., 2021). Therefore, it is hypothesized that:

H2. Depression negatively influences the quality of life.

2.3. Moderated mediation effect of belongingness

Belongingness is the need for comfortable and pleasant social contact with specifically-chosen individuals, increasing satisfaction and interpersonal bonds, as indicated by stability, affective concern, and continuation of supports into the foreseeable future (Baumeister & Leary, 2017, pp. 57–89). Research has shown that increased psychological adjustment is associated with a higher quality of life and reduced depression, anxiety, stress, and burnout, and vice versa (Bantjes & Kagee, 2018; Chambers et al., 2017; Yildirim & Solmaz, 2021). In light of the high levels of infections and high death rates, those with more significant anxiety and stress regarding the virus are at greater risk of increased psychological adjustment problems (Arslan, Yildirim, Tanhan, Buluş, & Allen, 2020). Anxiety related to employment status is prevalent among individuals of all ages, and has increased substantially amidst the COVID-19 pandemic, ultimately leading to depressive symptoms and reduced quality of life (Al Mamun, Hosen, Misti, Kaggwa, & Mamun, 2021). Many adverse behavioral, psychological, and social outcomes, including mental illness, criminal tendency, and social isolation, are explained by a lack of a sense of belonging (Arslan, 2021; Gratz et al., 2020). In the context of the lockdown due to COVID-19, deficiencies in the need for belongingness can cause negative emotions such as anxiety, jealousy, and depression, together with high levels of stress and loneliness, while conversely, fulfillment leads to the experience of positive emotions, such as happiness and joy (Arslan, 2021; Arslan et al., 2021; Yarberrry & Sims, 2021). Therefore, we hypothesize that:

H3. There is a moderated mediation influence of belongingness on the association between employment anxiety and quality of life passing through depression.

Fig. 1 shows the research model, depicting the moderated mediation mechanism. It indicates that employment anxiety influences depression, which in turn affects the quality of life. It also shows that students' belongingness moderates the influence of employment anxiety on the quality of life passing through depression.

3. Research method

3.1. Study design

The study employed a deductive research philosophy and positivism paradigm to operationalize the quantitative research techniques in Bangladesh through a multi-item questionnaire. Social media, such as LinkedIn and Facebook, were used to collect cross-sectional data from respondents in Bangladesh who were 18 years old and above, students at different universities, and who had internet access. Considering the pandemic, online data collection is recommended in various studies

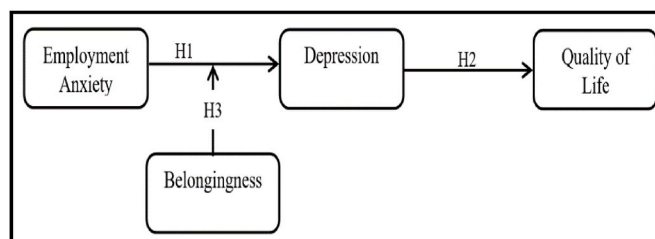


Fig. 1. Research model.

(Johara et al., 2021; Khan et al., 2021).

Moreover, we divided the survey questionnaire into three different sections. In section I, we kept a cover letter that included the title, purpose of the study, and confidentiality statement for the respondents. The rationale behind this separate section is to introduce our study to the potential respondents and the confidentiality statement was included for eliciting the accurate response and assuring them that their responses will be kept private. In section II, we included the demographic details of the diverse respondents. Finally, in section III, the study included the survey measures/scale representing each variable which were measured using 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Notably, informed consent was received from each respondent. We assured them that their responses will be voluntary that they can withdraw themselves from responding at any stage during the data collection process.

Eventually, we uploaded the survey measures and sent the questionnaire to 655 university students, finally receiving 301 replies, a response rate of 45.95 percent, and omitted 7 responses with missing data, outliers, etc. The response rate seems adequate, considering other studies using cross-sectional data (Das, Abdul Kader Jilani, Uddin, Uddin, & Ghosh, 2021).

3.2. Participant information

Table 1 highlights the demographic profile of the respondents. Data were collected from 294 respondents who represented both genders almost equally (male 158, 53.7 percent; female 136, 46.3 percent). The majorities of the respondents were undergrad students (70.7 percent) from public universities (87.4 percent) and were unemployed (87.1 percent). Most respondents lived in town (58.8 percent) and were Muslim (92 percent). We found that the largest segment (67 percent) of the respondents' family income ranged from BDT. 15 K to BDT. 35 K. The age distribution revealed that 62 percent of respondents were 17–23 years old, with an average age of 22.47.

3.3. Measurement tools

Survey measures were adopted from previous studies (Appendix I). Belongingness was measured using the scale of Oosterhoff, Palmer, Wilson, and Shook (2020). Items (e.g., 'These days, I feel like I belong') were assessed on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate better belongingness. The Cronbach alpha for belongingness in the present study was 0.953. Six-item scale for depression of Meijer, de Vries, and van Bruggen (2011) was used in this

Table 1
Participants' information.

Variable	Classification	Frequency	Percentage
Age (Mean age = 22.47)	Above 17 years	68	23
	Above 20 years	115	39
	Above 23 years	111	38
Gender	Men	158	53.7
	Women	136	46.3
Education	Undergrad	208	70.7
	Master	66	22.4
	Others	20	6.8
Institute	Public	257	87.4
	Private	37	12.6
Employment status	Unemployed	256	87.1
	Self-employed	17	5.8
	Others	21	7.1
Residential status	Urban	173	58.8
	Sub-urban	52	17.7
	Rural	69	23.5
Religion	Islam	248	84.4
	Others	46	15.6
Family income	15 K–35 K	197	67.0
	35 K and above	97	33.0

study and items (e.g., 'I am feeling lonely in this pandemic') were used on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores reflect a person's higher depression level. The Cronbach alpha for depression was 0.934. Employment anxiety was measured using the scale of Hagquist and Starrin (1996) and items (e.g., 'In this pandemic, we will have to relocate') were measured on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate higher employment anxiety levels. The Cronbach alpha for employment anxiety was 0.878. Finally, the 7-item quality of life scale of Whoqol (1995) was used in this study. The items representing this variable were measured on a five-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). The higher scores show a better quality of life. The Cronbach alpha for quality of life was 0.955. The rationale behind these choices was justified because of their adequate psychometric properties.

4. Results

4.1. Analytical techniques

The study employed covariate-based structural equation modelling (SEM) using AMOS version 23 to analyze the data. SEM is preferred over other regression techniques because of its robustness and exhaustiveness, as it integrates both the measurement and structural models holistically (Hair Jr., Hult, Ringle, & Sarstedt, 2017; Johara et al., 2021). Primarily, SEM evaluates the measurement model through the assessment of reliability and validity estimates and confirm the psychometric properties of the measures or measurement tools. Secondly, SEM evaluates the structural model is to assess the strength of the path and overall predictability of the model (Khan et al., 2021; Mahmood, Uddin, & Luo, 2019).

4.2. Measurement model evaluation

Table 2 shows the descriptive statistics and measurement issues of the survey, together with the mean and standard deviation of the observed variables. The table also indicates the significant correlations between the latent variables. The measurement model evaluation was examined through convergent and discriminant validity. Hair Jr. et al. (2017) report that average variance extracted (AVE), composite reliability (CR), and Cronbach's Alpha (CA) are valid measures of convergent validity. The minimum thresholds for AVE, CR, and CA are 0.50, 0.80 and 0.80 respectively (Hair Jr, Hult, Ringle, & Sarstedt, 2014; Hair Jr. et al., 2017).

Table 2 shows that the minimum threshold limits are confirmed, with no scores lower than 0.50 for AVE or 0.80 for CR and CA. In addition, discriminant validity was tested using the square root of AVE. Table 1 also demonstrates that discriminant validity is also confirmed, because the square root of a particular latent variable's AVE is higher than its correlation with other latent variables. Therefore, there is no issue with the validity of any of the survey measures.

4.3. Structural model evaluation

The structural model is tested using multiple criteria. Apart from using β and significance level, we also checked R^2 , and multi-collinearity issues to find any issue with the effect size and error in regression weights, respectively. The results showed that R^2 ranges from 35.6% (quality of life) to 42.42% (depression) which are very significant (Cohen, 1988). We examined the multi-collinearity and found none of their variance inflation factor scores exceeded 2.00. Thus, there is no issue with the multi-collinearity (Field, 2018).

4.4. Hypothesis testing

Table 3 shows the estimates of the hypothesized relationships. In H1, we propose that there is a positive influence of employment anxiety or

Table 2
Correlation matrix for measurement variables.

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Gender	1										
2. Education	0.146*	1									
3. Location	-0.081	0.024	1								
4. Religion	0.146*	0.165**	-0.105	1							
5. ES	-0.128*	0.222**	0.006	0.010	1						
6. Age	-0.224**	0.137*	-0.052	-0.009	0.171**	1					
7. Income	0.196**	0.031	-0.232**	-0.038	0.105	0.062	1				
8. BLGN	-0.053	-0.049	-0.026	-0.055	-0.128*	0.107	0.062	0.956			
9. DEP	0.072	0.061	0.009	0.094	0.053	-0.073	-0.101	-0.609**	0.889		
10. EA	-0.006	-0.004	-0.031	0.002	-0.017	-0.032	-0.081	-0.184**	0.319**	0.759	
11. QoL	-0.032	-0.052	0.017	-0.056	-0.060	0.090	-0.019	0.417**	-0.593**	-0.138*	0.872
Mean	-	-	-	-	-	22.48	2.150	1.82	3.92	4.30	1.980
SD	-	-	-	-	-	2.267	0.878	0.921	0.760	0.478	0.805
AVE	-	-	-	-	-	-	-	0.914	0.791	0.576	0.760
CR	-	-	-	-	-	-	-	0.970	0.950	0.905	0.962
CA	-	-	-	-	-	-	-	0.953	0.934	0.878	0.955
R ²	-	-	-	-	-	-	-	N/A	0.424	N/A	0.356

Notes: * and**. Indicate that correlation is significant at the 0.05 and 0.01 levels, respectively; ES - Employment status; BLGN – Belongingness; DEP – Depression; EA - Employment anxiety; QoL - Quality of life; SD - Standard deviation; AVE - average variance extracted; CR - Composite reliability; CA - Cronbach’s Alpha.

Table 3
Estimates of direct effects.

Hypothesis	Path relation	β	STERR	T Statistics	Decision
H1	EA → DEP	0.247	0.0811	2.7215	Supported
H2	DEP → QoL	-0.585	0.106	5.6234	Supported

EA -Employment anxiety; DEP – Depression; QoL -Quality of life; STERR -Standard error.

depression. Table 3 shows that the effect is significant ($\beta = 0.247$, t-value = 2.722), meaning H1 is supported. In H2, we hypothesize that depression has a considerable influence on the quality of life. The estimates in Table 3 indicate that depression does have a significant impact ($\beta = -0.585$, t-value = 5.623). So the hypothesis is also supported.

The PROCESS macro was used to examine the moderated mediation influence of belongingness; Table 4 shows this effect. We also checked the estimates of the direct impact of employment anxiety on the quality of life via depression, the indirect effect, and the moderated mediation index.

Despite the conditional (indirect) effect of different levels of depression, including non-zero (0) on the confidence intervals, the interaction effect, mediation effect, and index for the moderated mediation effect demonstrate that the confidence intervals are zero (0) and insignificant. Therefore, the moderated mediation is minor, so H3 is not supported. Estimates of the findings are also demonstrated in Fig. 2.

Table 4
Estimates of moderated mediation effect.

Path relation	β	Standard Error	p-value	95% CI	
				LL	UL
Interaction effect on DP	0.005	0.060	0.932	-0.112	0.122
Direct effect of EA on QL	0.097	0.084	0.248	-0.068	0.261
Conditional indirect effect of EA on QL at ...					
Low Belongingness	-0.216	0.084	0.011	-0.420	-0.089
Medium Belongingness	-0.219	0.064	0.001	-0.368	-0.117
High Belongingness	-0.222	0.077	0.004	-0.379	-0.063
Index of moderated mediation	-0.003	0.057	0.958	-0.117	0.116

DEP -Depression; EA -Employment anxiety; QoL -Quality of life; STERR -Standard error; CI -Confidence intervals; LL - lower limit; UL -upper limit.

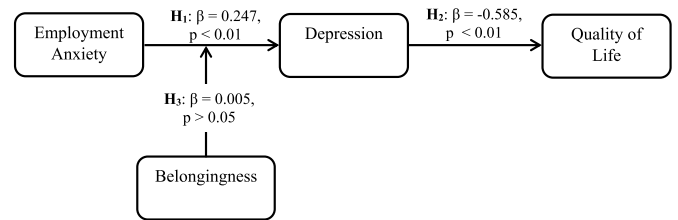


Fig. 2. Structural model with the estimates.

5. Discussion

The study has endeavored to predict the influence of employment anxiety on quality of life in a moderated mediation mechanism. This study examined the influence of employment anxiety on depression, and the moderated mediation effect of belongingness and depression on the quality of life during the neo-normal pandemic situation. The pandemic, which has caused the sudden halt of all types of economic activity, inducing the prolonged shutdown of all colleges and universities, has resulted in infinite tension among many of students about to enter the job market. Such anxiety ultimately leads to depression, with research showing that depression is closely associated with employment (Ezawa, Bartels, & Strunk, 2021). Similarly, in our study, H1 is statistically supported, illustrating a positive relationship between depression and employment anxiety, which validates the notion that with an increase in employment anxiety, depressive symptoms become noticeable (Mamun et al., 2020).

Our study has found a significant negative relationship between depression and quality of life, reinforcing the fact that due to the increase in depression caused by employment anxiety, the quality of life of students is negatively affected, thus validating H2 (Alam et al., 2022). Studies show that the quality of life is closely related to the mental well-being of individuals, and that those diagnosed with symptoms of depression have been identified to have a lower quality of life compared to those without such symptoms (Ma et al., 2020). Psychological distress, particularly depression, affects individuals’ immune system, which eventually leads to reduced physical well-being and finally a foreshortened quality of life (Khan et al., 2021).

In H3, we proposed that there is a moderated mediation effect of employment anxiety and belongingness on quality of life, and the estimates showed that the effect is found insignificant. People need to feel safe both financially and psychologically, and when depression is caused by employment anxiety, it significantly affects the quality of life. Thus,

the contingent effect of belongingness could have neutralized the negative influence of employment anxiety on the quality of life in a mediated mechanism because the severity of employment anxiety on the quality of life via the mediated mechanism of depression was so intense that psychological support from family and attachment to family seldom work for improving the quality of life. In this situation, study of [Tan, Khor, and Ooi \(2020\)](#) recommended psychoneuroimmunity measures, such as regular exercise, counselling hotlines, online-forums, scheduled rest periods, nutritional meals, etc. Their studies also postulated that early detection of risk factors affecting the quality of life can reduce the severity of the psychological meltdown significantly.

[Baumeister and Leary \(2017\)](#) stated that humans have a pervasive drive to form and maintain at least a minimum number of lasting, positive, and significant interpersonal relationships. Human interaction has been the source of psychological safety since the formation of civilization. COVID-19 has forced people to become isolated to avoid infection, and this lack of socialization has contributed to reduced mental well-being. However, when belongingness is used as a moderating variable in the context of the employment anxiety-depression-quality of life relationship, the results do not resonate accordingly, which proves that **H3** is not statistically supported. In the collective cultural context, for example in Bangladesh, the employment anxiety's influence negative influence on quality of life via depression was not effected by belongingness as the effect described above is so intense that no other variable has any intervening or contingent effect.

5.1. Contributions of the study

The present study contributes to advancing the knowledge in several ways. Notably, it proposes a fresh insight using the influence of employment anxiety on the quality of life via depression in the pandemic context. More importantly, inclusion of belongingness with this model as a moderator variable adds another dimension to the existing literature as social distancing or quarantine or isolation during COVID time ignites depression level to a new height ([Alam et al., 2022](#); [Khan et al., 2021](#)). This model provides a unique model in a moderated mediation mechanism with the inclusion of belongingness as a moderator for observing any significant effect between employment anxiety and quality of life. In addition, insignificant moderated mediation model effect provides another impetus that influence of employment anxiety on students' depression and quality of life is so intense that influence of belongingness is not a matter at all. Finally, this study was conducted in Bangladesh, an emerging Asian hierarchical culture, that fills the vacuum of the scarce research in the proposed domain in non-Western context.

5.2. Implications of the study

Our study provides a few notes for the policymakers, psychiatrists, health professionals, and educators to develop relevant policy interventions. First, employment anxiety is a common phenomenon among students and triggers them to fall into the trap of depression and recently it has been observed that a large proportion of the job is occupied by expatriates due to the local graduates' failure of possessing neo-employability skills in this neo-normal life. Thus, this study attests an insightful message for the policymakers and educators at higher educational levels for crafting essential changes in the curriculum and andragogy so that students' employability skills could be matched with the market demand. Second, this study implies another note for the psychiatrists and health professional to contain mental health issues including depressions. Health professionals or psychiatrists might suggest that educational institutions to introduce a counselling program for keeping depressed students and also others in loop. Moreover, there is

also enormous scope from their end to introduce apps and other tools to keep students with health issues in check. Finally, to prevent issues with the quality of life, the government should cooperate with the universities to clarify the required steps immediately and precisely. Moreover, parents and guardians should be encouraged to build a well-disposed and supportive family atmosphere for students, without pressurising them on their future academic and working careers.

5.3. Directions for the future research

One of the shortcomings of this study is the sample size, which restricted the generalization of the findings. An e-questionnaire was used to collect data that helped the researchers examine the existence of anxiety and depression among university students, while retaining WHO-recommended social distance, which would have been unnecessary otherwise. Individuals without a phone or internet connectivity were excluded from the survey, which may have resulted in an underestimating of the actual group scenario. Moreover, academics and researchers can go for a longitudinal study or multi-wave survey method on the same respondents similar to develop robust findings. The present study considered employment and belongingness issues impacting mental health. At the same time, it ignored important other factors such as, availability of health information and perceived severity of pandemic impacting mental health ([Wang et al., 2021](#)). The future study will provide a holistic view of mental health using variables from diverse multi-country perspectives.

6. Conclusions

The study aims to explore associations among employment anxiety, depression, quality of life, and belongingness in a moderated mediation mechanism during the pandemic situation. The results imply that the direct effects were found significant whereas the moderated mediation was found insignificant. As indicated by the study results, students have a high predominance of employment anxiety and depression, which are affecting their quality of life during the COVID-19 outbreak. Despite this study is not free from the drawbacks arising from the limited cross-sectional data, the study provides essential insights for the health professionals and educators for ensuring more engagement of students to improve their mental health during COVID and post-COVID context.

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CRedit authorship contribution statement

Salma Begum: Conceptualization, Data curation, Investigation, Writing – original draft. **Ahmed Ishmum Uddin:** Conceptualization, Data curation, Investigation, Writing – original draft. **Habibun Nahar:** Conceptualization, Data curation, Investigation, Writing – original draft. **Md. Ashrafal Alam:** Conceptualization, Investigation, Visualization, Writing – original draft. **Md. Aftab Uddin:** Conceptualization, Formal analysis, Investigation, Methodology, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix 1. Measurement tools

Latent variables	Items
Employment anxiety (Hagquist & Starrin, 1996)	In this pandemic, we will have difficulties in making ends meet We will have to relocate I will have no job to go toMy zest for life will be worsened I'll have difficulties in building up a good life for me and my family I will lose my self confidence I will suffer from physical ill health I will suffer from mental ill health
Depression (Meijer et al., 2011)	I am feeling sad, dirty or unwell while thinking about COVID-19 During this pandemic, I am feeling no interest to do anything I am feeling lonely in this pandemic I am feeling hopeless when I think about COVID-19 I am feeling valueless while reading news on COVID-19 I am feeling suicidal thoughts in this lock-down time
Quality of life (Whoqol, 1995)	The opportunity of education is going smooth Income and consumption is remaining same Productivity and creativity have increased due to lacking of paid and unpaid work The life expectancy and number of healthy life years remain same Comorbidities will be reduced Attending leisure activities including outdoor sports and cultural program increased Fulfilment of basic rights is not questionable Child and maternal health are still insured
Belongingness (Oosterhoff et al., 2020)	These days, other people care about me These days, I feel like I belong These days, I am fortunate to have many caring and supportive friends

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